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ABSTRACT

The practicum was designed to develop, implement, monitor, and evaluate a management system for developing and monitoring individual education plans (IEPs) for handicapped children as mandated by P.L. 94-142, the Education for All Handicapped Children Act. The products included an expectancy formula for educable mentally retarded (EMR) and learning disabled (LD) children, a teacher training component, and forms and procedures for implementing the evaluation process. IEPs were developed and monitored for more than 200 EMR and LD children in the rural school system in south Georgia. An analysis of the results of the IEPs on student achievement was reported. For handicapped children who had not received an individualized program prior to the utilization of the individual education plan, the data indicated statistically significant gains in reading and mathematics. Noted among other findings are that the direct costs of the management system program was minimal, that the most crucial factor in the effort was allocation of time, and that there were a few teachers who were amazed that someone would inquire as to the process in implementing the individual education plan. (Appendixes include an IEP monitoring guide, a sample IEP, student evaluation data, and an evaluation process scale.) (Author/SBH)

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This practicum was designed to develop, implement, monitor, and evaluate a management system for developing and monitoring Individual Education Plans for handicapped children as mandated by Public Law 94-142. The products included an expectancy formula for educable mentally retarded and learning disabled children, a teacher training component, and forms and procedures for implementing and evaluating the process. Individual Education Plans were developed and monitored for more than 200 educable mentally retarded and learning disabled children in the rural school system in south Georgia. An analysis of the results of the Individual Education Plans on student achievement was reported. For handicapped children who had not received an individualized program prior to the utilization of the Individual Education Plan, the data indicated statistically significant gains in reading and mathematics.

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Mary Lee
Armstrong

DEVELOPING AND MONITORING
INDIVIDUAL EDUCATION PLANS
FOR HANDICAPPED CHILDREN

by Mary Lee Armstrong¹

Submitted in partial fulfillment of the
requirements of the National Ed.D. Program
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Individual Practicum Report
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Developing and Monitoring
Individual Education Plans
for Handicapped Children

Mary Lee Armstrong

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To my mother,
Annie Maude Lee,
who believed and taught
that everyone is special

CHAPTER ONE

INTRODUCTION

The U. S. Office of Education and the Bureau of Education for the Handicapped have committed themselves to assuring equal educational opportunities for all handicapped children. Of the six objectives developed to guide the implementation of this priority, the one that is of the most concern to local educational agencies is to assure that every handicapped child is receiving an appropriately designed education.¹ In order to meet this criterion, the exceptional child must have been placed in the special education program according to specific due process procedures and have a specific intervention plan written to meet his individual needs.²

Congressional interests in this area have resulted in The Education for All Handicapped Children Act of 1975, commonly called Public Law 94-142.³ This law proposed that

¹Public Law 91-230 (Education of the Handicapped), secs. 601-605, 84 Stat. 175, 176 (1970).

²Public Law 94-142 (Education for All Handicapped Children Act of 1975), secs. 601-620, 89 Stat. 773 (1975).

³Ibid.

the federal government become more involved in the education of handicapped children by providing specific guidelines and accompanying entitlements for excess costs directly to state and local educational agencies.

One of the major components of Public Law 94-142 is the mandate that an Individual Education Program be developed for each handicapped child. According to the law (P.L. 94-142 sec 4 (a)):

The term 'individual education program' means a written statement for each handicapped child developed in any meeting by a representative of the local educational agency or an intermediate educational unit who shall be qualified to provide, or supervise the provision of, specifically designed instruction to meet the unique needs of handicapped children, the teacher, and parents or guardians of such child, and whenever appropriate, such child, which statement shall include (A) a statement of the present levels of educational performance of such child, (B) a statement of the annual goals, including short-term instructional objectives, (C) a statement of the specific educational services to be provided to such child, and the extent to which such

child will be able to participate in regular educational programs, (D) the projected date of initiation and anticipated duration of such services, and appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether instructional objectives are being achieved

Public Law 94-142 is one of the first legislative efforts of the federal government to mandate such specific requirements for educational programs. Supported by strong child advocacy groups such as the Association for Children with Learning Disabilities and the Association for Retarded Citizens that have national, state, and local organizations, the implementation of these regulations has become more pressing.

Assured that monitoring systems have been established at the federal and state level, many local school systems are in a quandary as how to proceed. Others question whether the implementation of these rather complicated procedures to gain additional monies, to keep current entitlements, and/or to protect themselves legally will prove to be effective in the education of the handicapped child. Therefore, this is a national problem and seems to be of great importance.

CHAPTER TWO

STATEMENT OF THE PROBLEM

Coffee County is located in rural southeast Georgia. It has one of the largest school populations in the area serving more than 5,428 students with a professional staff of more than three hundred members. It is a large geographic district that includes nine schools located on eleven campus sites. During the 1977-78 school year, the Special Education Program in the Coffee County Schools served more than 662 children (handicapped and gifted) with twenty-four state allotted teachers and two federally funded teaching units.

During the 1976-77 school year, the major emphasis of the Special Education Program was the implementation of procedural due process. Although some planning was conducted, efforts to develop and monitor individual education programs were not undertaken.

In administrative discussions concerning the implementation of Public Law 94-142 in the Coffee County School System, the following questions were posed:

1. What would be the effect of compliance vs. noncompliance economically, legally, politically, and educationally?
2. Were special education teachers developing individualized education programs for handicapped children in the system?
3. Were there any objective data that demonstrated that handicapped children in the system needed individualized programs?

Safeguards written into Public Law 94-142 to insure compliance mandated that a state or local educational agency that is deemed in noncompliance might lose all of its federal funding for education including programs for the handicapped, the educationally disadvantaged, vocational education and other special projects. In addition, the Georgia Department of Education stated that any local school system in the state found in noncompliance might lose state monies for the handicapped. Noncompliance would mean that the Coffee County School System would stand to lose \$1,050,000 or 18 percent of the total school budget from federal and state funds. However, if the school system was found to be in compliance, additional federal and state revenues of \$100,000 would be available to provide services to handicapped children during the 1978-79 school year. Therefore,

economically, compliance with Public Law 94-142 seemed advisable.

The legal aspects of compliance were another concern to the system. In Georgia the state legislature mandated that programs be established for all handicapped children (ages 6-17) by September 1978. With the state and federal laws, parents of handicapped children were provided with a firm base for legal action if a district did not provide a free appropriate education for all handicapped children. With the increase in litigation against school systems across the nation, a local educational agency would be inviting a court suit by willfully refusing to provide services.

Any decision to ignore the implementation of Public Law 94-142 in the Coffee County School System would have been politically unpopular. Coffee County had an active child advocacy group, the Association for Retarded Citizens. Many prominent community members worked with parents of retarded children and adults to encourage educational and support services in the area. In addition, the Council for Exceptional Children, a local chapter of the national organization of professionals working with exceptional children, was quite instrumental in promoting

the welfare and the education of the handicapped. Representatives from both of these organizations had already approached the administrative staff and various members of the elected Board of Education to determine how the school system planned to comply with the legislation.

Consideration of the educational effect of any program initiated in the school system was of the most concern. The educational value of individual education programs for handicapped children had a firm philosophical base in the theories and concepts of special education. All special education training programs for teachers were founded on the idea that special education children should have an individualized program based on identified needs. Special education methods and materials have been designed to be used to teach the specific skills, processes, and concepts that the handicapped child was not able to gain from the traditional classroom approach.

Therefore, the individual education program was not a new concept included in Public Law 94-142. The process should already have been established in the school system.

In order to determine the extent to which individual

education programs for handicapped children were being developed and implemented in the school system, a detailed examination of teacher observation/evaluation data and student records from the 1976-77 school year was made. Of the nineteen special education teachers (grades K-12) who were employed by the system to teach the handicapped, college transcripts showed that every teacher had had one or more courses in the diagnosis of academic problems in the area in which he taught. Curriculum courses dealing with individualizing instruction were also listed for each teacher.

A review of the special education inventory for each teacher verified the fact that a minimum number of diagnostic tests was available and additional materials were listed for loan by the testing department. The professional library included three or more books for each exceptionality on diagnosing and prescribing to meet the needs of the individual child.

Of the nineteen teachers of the handicapped in the school system, none of the teachers developed individual education programs in a written form that included all of the steps required by Public Law 94-142.¹ Five of the special

¹Quoted on pages 2-3.

education teachers in the elementary programs for the mentally retarded and learning disabled completed a thorough educational diagnosis for each handicapped child prior to developing an individual program. The specific determination of individual needs of the special education students in the other fourteen classes ranged from screening tests required for evaluation by the system to various stages of educational diagnosis of deficits to no diagnosis.

Further investigation of student folders and teacher data demonstrated that only five teachers who had completed an educational diagnosis had written objectives for their students. Fourteen special education teachers stated that Student X needed to improve in reading and that Student Y needed help with arithmetic.

After it was determined that the majority of special education students in the system did not have individualized programs based on identified needs, an examination of the pretest and posttest data submitted by each special education teacher was made. It was decided to limit the analysis of the data to the elementary programs for the mentally retarded (N=6 classes) and learning disabled (N=4 classes) since the five teachers who had been conducting complete educational diagnoses were in this group.

The Wide Range Achievement Test² was administered in September of 1976 and again in May of 1977 to all of the students in the special education classes in the system. The data were on file in the central office.

The test scores were divided into two groups for analysis. The first group consisted of children who had been taught by teachers who had made complete educational diagnoses and had written objectives. The second group was composed of children who had been taught by teachers who did not make educational diagnoses of the students' strengths and weaknesses and who had not written objectives.

The first group consisted of two classes of educable mentally retarded (N=44) and three classes of learning disabled (N=67) children. The results of an analysis of the test scores for these children revealed that this group made mean gains of 3.1 to 9.3 months in reading. The same group had mean gains of 1.2 to 10.8 months in arithmetic for the eight months period. These data are summarized in table 1.

²J. F. Jastak, and S. R. Jastak, The Wide Range Achievement Test (Wilmington, Delaware: Guidance Associates, 1965).

TABLE 1

STUDENT DIAGNOSIS/OBJECTIVES

Teacher [*]	Number of Students	Reading Gains ^{**}	Math Gains ^{**}
¹ emr	24	+3.1 mo	+ 1.2 mo
² emr	20	+4.6 mo	+10.8 mo
³ ld	22	+5.2 mo	+ 8.3 mo
⁴ ld	20	+9.3 mo	+ 7.8 mo
⁵ ld	25	+4.8 mo	+ 6.6 mo

*The Arabic numerals serve as code names for individual teachers and the abbreviations refer to the classification of handicapped children.

**Mean gains were based on The Wide Range Achievement Test scores from the September 1976 and May 1977 administrations.

The second group consisted of four classes of educable mentally retarded (N=84) and one class of learning disabled (N=24) children who had been taught by teachers who did not make complete educational diagnoses of the strengths and weaknesses of their students and who did not write objectives based on the results of the evaluations. An analysis of the test scores for this group revealed that they had a mean gain of .9 to 2.2 months in

reading for the eight month period. Their mean gains in arithmetic were 1.7 to 3.2 months during the same time. Table 2 is used to summarize this information.

TABLE 2
NO STUDENT DIAGNOSIS/OBJECTIVES

Teacher [*]	Number of Students	Reading Gains ^{**}	Math Gains ^{**}
⁶ emr	19	+1.0 mo	+2.4 mo
⁷ emr	23	+ .9 mo	+1.7 mo
⁸ emr	20	+2.2 mo	+2.9 mo
⁹ emr	22	+1.9 mo	+3.2 mo
¹⁰ ld	24	+3.0 mo	+2.6 mo

*The Arabic numerals serve as code names for individual teachers, and the abbreviations refer to the classification of handicapped children.

** Mean gains were based on The Wide Range Achievement Test scores from the September 1976 and May 1977 administrations.

Employing a t test to analyze the data, it was determined that the difference between the mean gains in reading and in mathematics of the students with diagnosis and objectives and the students without diagnosis and objectives was

statistically significant at the .05 level of confidence in each area.³ However, no attempt was made to attribute the significant differences in the academic gains between the two groups solely to the fact that some of the children had been educationally diagnosed and had had behavioral objectives developed.

All of the children in the programs for the handicapped in the Coffee County School System were placed according to criteria established by the Georgia Department of Education. Children were assigned to the classes by the placement committee of each school upon meeting the established criteria. Assignments were made to teachers within the various schools working in programs designed to serve the particular handicap and/or age category of the particular handicap. Therefore, the composition of the classes throughout the system was basically the same.

There were limited variations in the measured learning rate and academic achievement levels of the children in the two groups. However, the differences in learning rates were minimal. The differences in academic achievement levels did not seem to be a factor since the rate of growth was based on an individual basis rather than for the group. For example, two students might have

³Statistical procedures and computations are appended on pages 122-129.

gained three months in reading. While one student gained from a 1.3 to a 1.6, the other might have gained from a 4.5 to a 4.8 reading grade level.

After examining group means and determining that certain groups of handicapped children seemed to be learning more than others, it was still necessary to investigate the scores of individual children. It was important to find out whether the individual children were achieving according to expectancy or whether a discrepancy existed between the actual achievement and the expectations. Four student folders were randomly selected from the files of each of the teachers (N=10) of the educable mentally retarded and learning disabled classes in the elementary program. A total of forty records were reviewed.

Using the data from the individual psychological evaluations (Stanford-Binet or Wechsler Intelligence Scale for Children) that had been administered within the past three years, a current chronological age and mental age were computed. These data were used in an expectancy formula⁴ to determine where the child should be functioning academically.

⁴The expectancy formula is discussed further on pages 40-41.

Test scores from the May 1977 administration of The Wide Range Achievement Test were used as measures of actual achievement. The difference between expectancy and actual achievement was computed for each child in reading and in mathematics. The differences were labeled as the discrepancy. The discrepancy between the expectancy and achievement for the forty children is shown in table 3.

The sample examined was considered representative of the children in the population. After analyzing the data, it was noted that 95 percent of the students were achieving below expectancy in reading and mathematics. The range of the discrepancy between expectancy and achievement was from one month to four years nine months in reading. The range in mathematics was from one month to four years six months. On the basis of this information, it was concluded that a need existed in terms of student performance for some type of program designed to reduce the discrepancy between expectancy and achievement.

From the needs assessment, it was observed that 1) more than 95 percent of the handicapped children in the elementary special education program for the educable mentally retarded and learning disabled had a discrepancy between expectancy and achievement, 2) students whose needs

TABLE 3
DISCREPANCY BETWEEN EXPECTANCY AND ACHIEVEMENT

Student Code	Reading			Mathematics		
	Expec*	Achie**	Discr***	Expec	Achie	Discr
1001	3.7	1.1	-2.6	3.7	2.0	-1.7
1002	3.9	2.5	-1.4	3.9	2.1	-1.8
1003	3.0	2.1	- .9	3.0	1.4	-1.6
1004	4.1	3.2	- .9	4.1	3.5	- .6
2005	2.7	.8	-1.9	2.7	2.1	- .8
2006	2.5	1.8	- .7	2.5	2.7	+ .2
2007	4.0	3.4	- .6	4.0	2.1	-1.9
2008	3.3	2.0	-1.3	3.3	2.1	-1.1
3009	4.8	2.3	-2.5	4.8	.2	-4.6
3010	2.2	2.1	- .1	2.2	1.1	-1.1
3011	2.5	2.7	+ .2	2.9	2.3	- .6
3012	4.2	2.1	-2.1	4.2	3.1	-1.1
4013	3.3	2.3	-1.0	3.3	2.9	- .4
4014	4.1	2.2	-1.9	4.1	3.9	- .2
4015	4.5	4.1	- .4	4.5	3.9	- .9
4016	5.1	.2	-4.9	5.1	5.7	+ .6
5017	2.9	1.0	-1.9	2.9	2.5	- .4
5018	4.8	4.6	- .2	4.8	2.7	-2.1
5019	3.7	2.0	-1.7	3.7	1.2	-1.5
5020	3.3	3.0	- .3	3.3	2.8	- .5

* Expectancy

** Achievement

*** Discrepancy

TABLE 3 Continued

Student Code	Reading			Mathematics		
	Expec*	Achie**	Discr***	Expec	Achie	Discr
6021	2.7	1.4	-1.3	2.7	1.5	-1.2
6022	3.1	2.1	-1.0	3.1	1.9	-1.2
6023	2.5	1.4	-1.1	2.5	.8	-1.7
6024	4.5	2.2	-2.3	4.5	2.1	-2.4
7025	3.5	2.2	-1.3	3.5	2.5	-1.0
7026	4.7	2.3	-2.4	4.7	2.3	-2.4
7027	2.9	1.2	-1.7	2.9	2.1	- .8
7028	3.3	.9	-2.4	3.3	1.1	-2.2
8029	2.5	1.6	- .9	2.5	1.9	- .6
8030	4.3	2.4	-1.9	4.3	2.7	-1.6
8031	4.1	2.8	-1.3	4.1	1.6	-2.5
8032	3.9	1.6	-2.6	3.9	2.2	-1.7
9033	4.6	2.4	-2.2	4.6	4.8	+ .2
9034	3.3	1.2	-1.1	3.3	2.7	- .6
9035	2.8	2.1	- .7	2.8	.8	-2.0
9036	5.2	2.7	-2.5	5.2	4.6	- .6
10037	3.1	2.6	- .5	3.1	1.5	-1.6
10038	4.6	2.8	-1.8	4.6	4.7	+ .1
10039	4.1	2.3	-1.7	4.1	2.6	-1.5
10040	3.9	3.5	- .4	3.9	3.1	- .8

Based on test data from The Wide Range Achievement Test administered in May of 1977 and individual psychological examinations (Stanford-Binet or Wechsler Intelligence Scale for Children).

had been diagnosed educationally prior to the initiation of special services tended to achieve more in reading and mathematics than students whose needs had not been diagnosed, 3) students for whom instructional objectives had been written tended to achieve more than students for whom instructional objectives had not been written, 4) special education teachers in the system had been trained to provide individualized instruction, 5) special education teachers had been trained to conduct educational diagnoses, 6) a majority of the special education students was not receiving an instructional program based on identified needs, and 7) materials were available to identify educational needs. Therefore, initiating the development of Individual Education Plans for handicapped children would seemingly meet an identified need in the educational program of the local educational agency.

The purpose of the project was to design and implement a management system for developing and monitoring Individual Education Plans for handicapped children (N>200) in the elementary special education program for the educable mentally retarded and learning disabled in the Coffee County School System.

CHAPTER THREE

OBJECTIVES

In order to conduct this project, two terminal performance objectives and three process objectives were established.

Terminal performance objectives

1. As a result of this project, all of the handicapped children (NP200) in the elementary program for the educable mentally retarded and learning disabled will achieve 80 percent of the annual goals and short-term objectives listed on their Individual Education Plan by 30 June 1978 as evidenced by the annual review of the Individual Education Plan that will be on file in their student folders

At the beginning of the academic year, each handicapped student had annual goals and short-term objectives written for him based on diagnostic test data. The success of the project would be based on the number of

of handicapped children who mastered the annual goals and short-term objectives established for them.

2. As a result of this program, all of the handicapped children (N=200) in the elementary special education program for the educable mentally retarded and learning disabled will make a statistically significant gain (at the .05 level of confidence) in reading and mathematics by 30 June 1978 as evidenced by pretest and posttest scores on The Wide Range Achievement Test administered during the 1976-77 and 1977-78 school years

Prior to the initiation of the project, none of the students had had Individual Education Plans developed for them at the level described by Public Law 94-142. The children in five of the classes had been educationally diagnosed and had had objectives written for them. The children in the other five classes had not had either. If the Individual Education Plan for handicapped children (all five components) was essential as suggested by its proponents, even the students who had had partial programs would make larger gains than those who had none. Although the gain might not be significant at the .05

level of confidence, it would be measurable.

Process objectives

3. As a result of this project, all of the handicapped children (N>200) in the elementary special education program for the educable mentally retarded and learning disabled will have Individual Education Plans by 30 June 1978 as evidenced by their student folders

4. As a result of this program, all of the special education teachers (N=10) in the elementary programs for the educable mentally retarded and learning disabled will be able to coordinate the development and implementation of Individual Education Plans for the handicapped children in their classes by 30 June 1978 with an 80 percent rating on an informal rating scale¹

3. As a result of this project, all of the special education teachers (N=10) in the elementary program for the educable mentally

¹A copy of the informal rating scale is appended on pages 80-81.

retarded and learning disabled will be statistically significantly more effective (at the .05 level of confidence) by 30 June 1978 as measured by academic gains of their students

CHAPTER FOUR

RESEARCH TO DEVELOP A STRATEGY

The research to develop a strategy was divided into two main sections. They were the review of the literature and an investigation of the alternatives available.

Review of the literature

A review of the literature on individualization based on identified needs for handicapped children was made through Educational Resources Information Center (ERIC) and Current Journals In Education (CJIE). The preliminary search was basically limited to the legal requirements of the Individual Education Plan, to the effectiveness of educational diagnosis on program planning, individualization of programs for the handicapped, and strategies for implementing and evaluating individualized programs for handicapped children.

The Individual Education Plan (IEP) is a requirement of the federal Education for All Handicapped Children Act of 1975, commonly called Public Law 94-142. This law requires

that all children, regardless of the type and the extent of handicaps, be provided a free appropriate public education and/or related services as needed to meet their unique learning needs. An integral provision within the law requires that an IEP be written for each exceptional child who is receiving or will receive special education, regardless of the institution or agency providing the service.¹

The concept of individual education programming has parallels in other federal legislation. Public Law 94-103, the 1976 Amendments to the Developmental Disabilities requires that services be provided according to an Individualized Program Plan (IPP). The 1974 Amendments to the Vocational Rehabilitation Act, Public Law 93-122, similarly assure the provision of an Individualized Rehabilitation Plan (IRP). Therefore, the development and implementation of individualized programs (IEP's, IPP's, or IRP's) have been required to assure that children with special learning needs will have greater opportunities for successful educational experiences.²

¹Alan Abeson and Others, A Primer on Due Process: Education Decisions for Handicapped Children (Reston, Virginia: Council for Exceptional Children, 1975).

²Judy A. Schrag, Individualized Educational Programming: A Child Study Team Process (Austin, Texas: Learning Concepts, 1977); Alan Abeson and Others, A Primer on Due Process: Education Decisions for Handicapped Children.

The effectiveness of educational diagnosis on program planning has been demonstrated by various educators in the field of general education in the past, and the basic concept of special education dictates that specific programs must be developed for individual children based on the strengths and weaknesses of the individual child. Cruickshank and Johnson in their classic 1958 textbook, Education of Exceptional Children and Youth, stressed the importance of educational diagnosis. Cruickshank continued to emphasize this point in his third edition of Psychology of Exceptional Children and Youth in 1971. Samuel Kirk, another leader in the field of special education, has repeatedly urged the identification of the specific needs of all handicapped learners prior to the development of adequate educational programs.³

Authorities in areas of particular handicaps have also urged educational diagnosis. Robert Valett and Helmer Myklebust individually developed educational programs for learning disabled children based on a thorough psychoeducational

³William M. Cruickshank and G. Orville Johnson, eds., Education of Exceptional Children and Youth (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1958); William M. Cruickshank, ed., Psychology of Exceptional Children and Youth, 3d ed. (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1971); Samuel A. Kirk, Educating Exceptional Children, 2d ed. (Atlanta, Georgia: Houghton-Mifflin, 1972).

diagnosis in their textbooks published in the sixties. Textbooks concerning the education of learning disabled children written almost a decade later by Patricia Myers and Donald Hammill, William Gardner, George Taylor and Stanley Jackson continued to stress the same procedures for the most appropriate methods in working with the learning disabled child.⁴

In the education of the emotionally disturbed child, Peter Knoblock reviewed the status of educational programming based on educational diagnosis at the First Annual Conference on the Education of Emotionally Disturbed Children. The same ideas and concepts were incorporated in the multivolume textbook, Educational Therapy, edited by Jerome Hellmuth and published five years later in 1969. In the late seventies, educational programs for the emotionally disturbed are being developed

⁴Robert E. Valett, The Remediation of Learning Disabilities (Belmont, California: Fearon Publishers, 1967); Helmer R. Myklebust, ed., Progress in Learning Disabilities vol I (New York: Grune and Stratton, 1968); Patricia I. Myers and Donald D. Hammill, Methods for Learning Disorders, 2d ed. (New York: John Wiley and Sons, Inc., 1976); William I. Gardner, Learning and Behavior Characteristics of Exceptional Children and Youth: A Humanistic Behavioral Approach (Boston: Allyn and Bacon, Inc., 1977); George R. Taylor and Stanley E. Jackson, Educational Strategies and Services for Exceptional Children (Springfield, Illinois: Charles C. Thomas Publisher, 1976).

in the public schools of America where an educational rather than a medical approach to therapy has become the choice of the times. Here again, an educational diagnosis precedes the development of the specific treatment program.⁵

Leaders in the field of the education of the mentally retarded have also stressed the importance of making a complete educational diagnosis of the needs of the individual child. Samuel Kirk, Oliver Kolestoe, and Robert M. Smith have presented textbooks for teachers of the mentally retarded that point out the futility of trying to remediate the deficits of the educational program without first determining what the deficits were.⁶

After a careful study of the educational strengths and weaknesses of the handicapped child, methods and strategies

⁵Peter Knoblock, Educational Programming for Emotionally Disturbed Children: A Decade Ahead (New York: Division of Special Education and Rehabilitation, Syracuse University, 1964); Jerome Hellmuth, ed., Educational Therapy vols 1-2 (Seattle, Washington: Special Child Publication, 1969); Special Education Regulations and Procedures (Atlanta, Georgia: Georgia Department of Education, 1976).

⁶Samuel A. Kirk, Teaching Reading to Slow-Learning Children (Boston: Houghton-Mifflin, 1940); Oliver P. Kolstoe and Roger M. Frey, The High School Work-Study Program for the Mentally Subnormal Student (Carbondale, Illinois: Southern Illinois Press, 1965); Robert M. Smith, Clinical Teaching: Methods of Instruction for the Retarded, 2d ed. (New York: McGraw-Hill, 1974).

recommended by the experts are all centered on individualized programs. Since handicapped children by definition require additional services in order to profit from their educational program, it would be expected that the most effective and efficient program would be individualized according to Ralph Blanco. Peter Laurence, L'Abate and Curtis, Haring and Schiefelbusch, and William Gardner have developed curriculum textbooks for teachers of exceptional children that propose that an individualized approach be taken. These specialists represent the accepted teaching methodology in the area of special education in America today.⁷

Specific research on methods and strategies for the implementation of Individual Education Plans as defined by Public Law 94-142 is limited. Although the law was passed in 1975, the mandates did not go into effect until 1 October 1977 for the IEP and 1 September 1978 for the total requirements of the legislation. Therefore, studies, research articles, books and media publications are somewhat scarce.

⁷ Ralph F. Blanco, Prescriptions for Children with Learning and Adjustment Problems (Springfield, Illinois: Charles C. Thomas Publishers, 1977); Peter Laurence, Prescriptive Teaching (New York: McGraw-Hill Book Company, 1965); Luciano L'Abate and Leonard Curtis, Teaching the Exceptional Child (Philadelphia: W. B. Saunders, Company, 1975); Norris G. Haring and Richard L. Schiefelbusch, eds., Methods in Special Education (New York: McGraw-Hill Book Company, 1967); William L. Gardner, Children with Learning and Behavior Problems (Boston: Allyn and Bacon, Inc., 1974).

Books and media kits concerning the implementation of the various components of Public Law 94-142 are beginning to become available. Pasanella and others in California have produced a workbook, Individualized Educational Programming, that is designed for teachers of the young and severely handicapped. It includes a rationale, the requirements of the law, sample forms, suggested diagnostic tests and evaluative instruments, and general help hints for adequate compliance.⁸

Another commercially prepared kit that was on the market when the project was developed was A Free Appropriate Public Education for All Handicapped Children published by the Council for Exceptional Children. This program was developed to help educators and parents to understand the many facets of Public Law 94-142. Included in the package are three captioned filmstrips accompanied by audio tapes, a written script, a copy of the law, and a question and answer booklet concerning the major issues of Public Law 94-142.⁹

Possibly the most attractive as well as practical training

⁸ Anne L. Pasanella and Others, Individual Educational Programming, 2d ed, (North Hollywood, California: Foreworks, 1978).

⁹ A Free Appropriate Public Education for All Handicapped Children (Reston, Virginia: Council for Exceptional Children, 1976).

package has been developed by Judy Schrag. It is a part of the Mainstreaming Training Series edited by Thomas Faircloth and published by Learning Concepts. The kit, simply entitled Individualized Educational Programming, contains a teacher's guide, a filmstrip, audio tape, and a transcript of the audio tape. The packet also contains a section to be reproduced for teacher utilization. It includes a handbook with delightful cartoons illustrating the concept of the Individual Education Plan with drawings and captions that appeal to teachers.¹⁰

Alternatives and strategy

Several methods of establishing individualized education programs for exceptional children in the system were considered. The first possible solution was to utilize Title VI-B monies (\$29,412) to hire diagnosticians whose primary responsibility would be to write these plans. Two individuals could be employed with the available funds. However, the proposal was not considered viable, because it is important that teachers who are to carry out these programs be involved in their development.

The utilization of commercially prepared materials on the

¹⁰Judy A. Schrag, Individualized Educational Programming, Thomas A. Faircloth Series in Mainstreaming Training (Austin, Texas: Learning Concepts, 1977).

development and implementation of Individual Education Plans was reviewed. Although some of these materials could be used in teacher training to establish an awareness of the concepts and could provide procedural guidelines, this approach would not insure that Individual Education Plans were actually being written and implemented.

Workshops and seminars could also be provided by consultants from the area Georgia Learning Resources System and/or the area colleges. Staff development monies were available, and each teacher could be afforded the released time to participate. However, this process would not insure that the plans were ever written or implemented.

The possibility of writing a handbook or procedural guide was entertained. This strategy involved the same weaknesses as the others in that it did not insure carry-through. In addition, commercially prepared materials of much higher quality were already on the market.

After careful consideration of the alternatives, it was decided that no one method would work. In this situation, a combination of strategies would be required for the success of the program. Staff development or teacher

training would certainly be a part of the program. Commercially developed materials could be used to aid in the training program along with the expertise of the area consultants in special education. However, a monitoring system would also need to be a component of the effort to insure the development and implementation of individual programs for the handicapped children in the target population.

Although the special education teachers in Coffee County had been trained to diagnose and prescribe for handicapped children, it was found that the majority of them continued to teach to children without completing a diagnosis and without writing a prescription. It was projected that initiating the development of Individual Education Plans would be a strategy to insure that each teacher was at least aware of the needs of the individual child and had formulated a plan to meet the needs.

Although individualized programs might be needed for all of the handicapped students in the special education program, an administrative decision was made to limit the project to the elementary program for the educable mentally retarded and the learning disabled during the 1977-78 school year. Institutionalization into the

secondary division and into other areas of exceptionality would be conducted in subsequent years.

CHAPTER FIVE

PROCEDURES

The first step in initiating the project was to obtain the permission and approval of the superintendent to conduct the program. Since the development of Individual Education Plans was mandated by Public Law 94-142 and since the Coffee County Board of Education had directed compliance with this legislation, the approval of the local board of education had also been obtained prior to the beginning of the project year. After the approvals and assurances were received, it was possible to proceed with the effort assured that no one could arbitrarily put an end to the work before it was finished.

Before the process of developing, implementing, and evaluating individualized education programs for handicapped children in the area could be initiated, a teacher training program had to be developed. A search was made through the Educational Resources Information Center and the Current Journals in Education to determine the background information needed and to secure other materials

for the development of the product. Since new federal and state guidelines and regulations were being issued periodically, it was necessary to be aware of changes that might need to be included in the final product.

Consultants from the Georgia Learning Resources System were contacted. The Georgia Department of Education had trained the directors of the Georgia Learning Resources System to serve as trainers of coordinators and teachers in the local school systems in the development and monitoring of the Individual Education Plans. The Director agreed to conduct a portion of the first teacher training session and to provide an overview of the theoretical basis for this particular aspect of Public Law 94-142.

Staff personnel from the Georgia Department of Education were approached for technical assistance. They volunteered to provide sample forms, sample plans, and other information on Individual Education Plans as guidelines were issued by the Bureau of Education for the Handicapped.

Area personnel trained in special education from the Cooperative Educational Services Agency, Valdosta State College, and the local school systems in the surrounding counties were contacted for suggestions, recommendations, and external evaluation. These individuals were able

to provide invaluable services particularly in the area of brainstorming. Feedback on materials to include in the training sessions and on ideas to consider in the monitoring process was also helpful.

Commercial materials were examined for utilization in the training program. Judy Schrag's Individualized Educational Programming packet was purchased from Learning Concepts. A sufficient number of handbooks for every special education teacher to have a personal copy was also acquired.

After reviewing the literature and the latest federal and state guidelines that were available and purchasing the commercially prepared materials, the project director began to adapt and adopt the information to meet the needs of the basically rural community. A teacher training program was subsequently designed and scheduled for the 1977-78 school year.

It was decided that the teacher training program would consist of two group sessions and three individual conferences or meetings per teacher. The group sessions were recorded on the county-wide school calendar prior to the beginning of the academic year so that no conflicts would occur. Teacher conferences were scheduled on an

individual basis after the school year had begun. Specific days during each month were scheduled for individual conferences and observations before the year began, but the names of the teachers to be visited on the days were determined later.

The first group session of the teacher training program was held on 1 September 1977 on released time provided by the local system. The meeting lasted eight hours and was attended by the six teachers of the educable mentally retarded and four teachers of the learning disabled who comprised the staff of the elementary program in the system. A workshop format was used.

The staff of the Georgia Learning Resources System was responsible for the first portion of the agenda. Using the Council for Exceptional Children's media presentation,¹ the presenter provided the legal and theoretical background for Individual Education Plans. This part of the program lasted for approximately one hour. It was evaluated by a pretest and posttest developed by the Georgia Department of Education to be used with such sessions.²

¹A Free Appropriate Public Education for All Handicapped Children, 1976.

²A copy is appended on pages 83-85.

The remainder of the workshop was under the direction of the Coordinator of Special Education. Forms to be used for the three components of the Individual Education Plan (annual goals, short-term objectives, and annual review)³ had been developed and reproduced earlier for the training session. These forms were to be used initially with the possibility of modification during the year. They were available for discussion and utilization during the staff workshop.

After the specific forms that comprised the Individual Education Plan were examined, the filmstrip from Schrag's Individualized Educational Programming with the accompanying audio tape was presented. There was a discussion at the end of the presentation, and the Schrag handbooks were distributed to the teachers.

The balance of the day was spent in the actual development of the first drafts of Individual Education Plans. Each of the special education teachers had been directed to bring complete student folders for four of the children enrolled in her class for the 1977-78 school year. The folders contained the psychological and educational evaluations that had been administered during the spring of

³Sample copies are provided on pages 87-89.

the previous year.

If the teachers did not have test data available from the previous spring evaluations, they were instructed to administer the Peabody Individual Achievement Test, the Motor Free Visual Perception Test and The Wide Range Achievement Test prior to the training session. The tests and manuals, as well as a brief review of the administrative techniques, were provided to the individual teachers (N=5) who needed them during the pre-planning work week. Other test data were acceptable from those teachers who had completed an educational diagnosis for their students during the previous spring.

This information was used to discuss the problem of establishing appropriate annual goals and short term objectives. Each child had to be considered individually. The area of exceptionality, educable mental retardation or learning disabilities, had to be noted. Using data from the individual psychological evaluation (Stanford Binet, Form L-M or Wechsler Intelligence Scale for Children) that had been administered within the last three years, a current chronological age and mental age had to be established. The intelligence quotient, or rate of learning, was also noted.

Academic achievement test data for each child were recorded from the information in the student folders. Grade levels in reading and mathematics were listed from The Wide Range Achievement Test results.

The next step was to compute the level of academic expectancy for each child. Since no nationally accepted formulas have been designed for handicapped children, a local formula was developed by special education administrators. Expectancy formulas for normal children generally give more weight to chronological age than to mental age as evidenced by the following formula:

$$\frac{2CA + MA}{3} - 5.2 = \text{Expectancy}^4$$

However, in utilizing the formula with children in the rural area of south Georgia, it was found that the level of expectancy was too high to be practical.

It was observed that handicapped children in this area tended to achieve more in accord with their mental ages than with their chronological ages. This was particularly true of the educable mentally retarded. In addition, since more than 90 percent of the learning disabled

⁴An expectancy formula recommended by the Georgia Department of Education at the Spring Special Education Administrator's Workshop at Macon, Georgia, March 28-31, 1977. CA equals chronological age; MA equals mental age; 5.2 is a constant used as a correction factor for pre-school years.

children in the area had an intelligence quotient below 90, they tended to function more in accord with their mental ages than their chronological ages. Therefore, the following formula was developed for handicapped children:

$$\frac{2MA + CA}{3} - 5.2 = \text{Expectancy}^5$$

The special education teachers were instructed to utilize this formula to compute academic expectancy for the children in their classes. Other data such as information from the psychological evaluation on cognitive functioning and significant school experiences were also to be taken into account, but the expectancy formula would serve as the general rule.

After determining where the child should be functioning, or his expectancy, it was necessary to establish a predicted growth rate for the academic year. This information would be used in establishing the annual goals. The predicted growth rate was based on the expectancy. If the child had been in school for three years and had an expectancy of 2.1, he should be gaining seven months per year. This was computed by dividing the number of years in school into the expectancy. The predicted growth rate

⁵This expectancy formula was developed by Wendell R. Tanner, Coordinator of Special Education for Bacon County Schools, and Mary Lee Armstrong, Coordinator of Special Education for Coffee County Schools, for utilization with the educable mentally retarded and learning disabled populations.

would serve as the criteria for the annual goals in reading and mathematics.

After establishing three to five annual goals for each child in areas such as reading, mathematics, perceptual-motor development, and social adjustment, the development of short-term objectives was discussed. Short-term objectives were to be designed to insure the achievement of the annual goals. They were based on the results of the individual child's educational diagnostic tests.

Although two children might have the same annual goal such as to gain four months in mathematics, the short-term objectives would probably be quite different. While one child might need to master the basic addition facts and processes in order to gain four months in mathematics, the other child might need to learn the use of fractions and decimals to have the same rate of gain.

Since Individual Education Plans were supposed to be written as a group effort (the child's teacher, the special teacher(s), the parents and when appropriate, the child), the project teachers were only able to write the draft plan. The itinerant teachers for speech, hearing, and vision, who often provide additional services to the educable mentally retarded and learning disabled, were

available to assist in writing the draft plans. The consultant from the Georgia Learning Resources System and the project director also served as resource persons during the actual development of the draft plans.

Specific procedures to be followed by the special education teachers to complete the process of writing the Individual Education Plans by the 1 October 1977 deadline were outlined at the end of the workshop. Directions were given concerning the composition of the committees. Procedures for documenting efforts to obtain parent participation were outlined. Steps for the final submission to the central office were provided.

Instructions were also provided for the development of similar plans for handicapped children who were placed in the program after the 1 October 1977 deadline. The law requires that this procedure be completed within thirty days of placement.

An informal rating scale had been developed to evaluate the Individual Education Plans.⁶ Copies of the plans that were written after the training sessions were collected and evaluated to determine the effectiveness of

⁶A copy is appended on pages 80-81.

the workshop. This information was later used in individual conferences with the teachers that were designed to extend the workshop program.

The second group session was scheduled for 3 March 1978. It was held during a two-hour-fifteen-minute-session. Released time was provided by the system. The ten special education teachers attended.

The agenda included an up-date on data gathered during the year concerning the development and implementation of the Individual Education Plans. The results of the monitoring process were discussed. Each group member was encouraged to make comments and suggestions concerning possible changes in the process and/or recommendations for modification of the forms and procedures.

The main item on the agenda was a discussion of the annual review of Individual Education Plans. Educational testing had to be completed prior to the establishment of committees. The composition of the committee and a schedule of committee meetings had to be developed for each school. A procedure for informing the committee members was designed.

The forms to be used for the annual review were distributed and discussed. A deadline of 1 June 1978 was established

for submission to the central office. An informal evaluation of the training session was made.⁷ The data gained from this assessment was used in individual teacher conferences prior to the end of the school year, where necessary.

Although the special education teachers had been trained to develop Individual Education Plans for their students, it was necessary to monitor and support the process to insure implementation. Before a system-wide supervisor or administrator can work effectively with teachers assigned to individual schools, it is necessary to communicate with the building principals. The project had been discussed with the principals (N=6) prior to the first workshop. Immediately after the training sessions, a memorandum summarizing the staff development activities and outlining the procedures to be followed to meet the federal deadlines was sent to the principals. A ten minute review was also presented at the administrative staff meeting and principals' staff meeting following the inservice sessions.

Procedures to be followed by system personnel for the development of Individual Education Plans for handicapped

⁷A copy of the instrument is appended on pages 91-92.

students referred to the program during the 1977-78 school year were developed and reproduced. This information was distributed to the principals, counselors, school psychologists and special education teachers for ready reference.

As the Individual Education Plans were submitted by the special education teachers to the Coordinator at Special Education, a careful analysis of each plan was made. Each plan was evaluated for the following points:

1. Complete personal information
2. Three to five long-term goals
3. List of persons to provide services
4. Percent of time
5. Beginning date
6. Review date
7. Summary of present level of functioning
8. List of committee members
9. Related services needed
10. Five or more short-term objectives
11. Criteria for mastery
12. Form of evaluation
13. Anticipated duration of services
14. Special materials and equipment needed
15. Parental signature

Notes were made concerning additions, omissions, and

other data needed on each Individual Education Plan and were sent back to the special education teacher. A copy was sent to the principal, and a date was established for an individual conference.

In Georgia, a monthly attendance report must be submitted to the Georgia Department of Education accounting for children served by special education teachers during the twenty day period. This report is used to compute teacher allotments and other allocations of funds for the following academic year. According to the instructions that accompany the report forms, in order for a child to be counted as having received special education services, the child must have been placed according to due process and must have an Individual Education Plan on file. All special education attendance reports in the Coffee County Schools were made in the central office and submitted as a system-wide summary. Therefore, it was decided that Individual Education Plans for handicapped children included on the monthly attendance report had to be on file or submitted by the last day of the reporting period to the central office.

At the end of the twenty day period, the central files were compared with the attendance reports of the special education teachers to be sure that the plans were in place.

Plans for new students were evaluated and filed at the time. Incomplete plans were returned to the individual teachers for revision prior to the next reporting period.

Efforts were also made during the project year to insure that the Individual Education Plans that had been developed were implemented. Individual conferences were scheduled with each teacher each quarter. The project director visited in the class and observed students at their work. Teachers were asked to show how the particular lessons were related to the formal plans. A log was kept of these sessions, and a copy was given to the principals.⁸

The Wide Range Achievement Test was administered to every handicapped child in the system for the purpose of evaluation. It was given yearly in September or within a month after the child entered the program. These pretest data were submitted to the central office. The same test was given as a posttest in May, and the results were sent to the central office. This procedure was already established in the system. The data were used as a part of the evaluation process.

Other data gathered during the year were assembled for analysis. Once the annual reviews were submitted in June

⁸A sample log is included on page 94.

and evaluated, an analysis of the effectiveness of the program was made. This information was used to make plans for the institutionalization of the process into the total special education system for the 1978-79 school year. Modifications were made and training sessions were scheduled. The final procedures were then included in the Annual Program Plan⁹ for Coffee County Schools that was adopted by the local board of education and submitted to the Georgia Department of Education for approval. The plan was accepted on 25 August 1978.

Dissemination of the effort was conducted throughout the project year. Presentations were made in September of 1977 to the local chapters of the Council for Exceptional Children and the Association for Retarded Citizens. It was also presented to the Special Education Advisory Committee for Coffee County Schools in the fall of the year. More than fifty special education teachers, administrators, parents and community leaders were at these meetings.

News articles that included pictures of the teachers working in the staff development workshops were submitted to the local newspapers, the Coffee County Progress and the Douglas Enterprise. An article concerning the development

⁹Annual Program Plan FY 79 (Douglas, Georgia: Coffee County Board of Education, 1978).

of Individual Education Plans during the project year was also sent to The Confederation, the state newsletter for the Georgia Chapter of the Council for Exceptional Children. These media presentations served to inform the parents and the community of the efforts of the Special Education Program to improve the education of handicapped children and to comply with the mandates of Public Law 94-142.

A discussion of the project was also held at the area Special Education Administrators Meeting with representatives from the nine adjacent school systems present. Three school systems adopted or adapted portions of the model for the 1978-79 school year.

By the end of the 1977-78 school year, the evaluation of the products and process was completed, the plans for institutionalization were finalized, and dissemination efforts were conducted. A management system to insure the development and implementation of Individual Education Plans for handicapped children had been designed, monitored and evaluated prior to institutionalization into the Special Education Program of the Coffee County Schools.

CHAPTER SIX

RESULTS

In order to evaluate the project, specific procedures designed to determine the degree to which the stated objectives were met were considered before the program was initiated. Each step was carefully followed to determine the effectiveness of the model. The objectives were divided into terminal performance objectives and process objectives.

Terminal performance objectives

Objective one was concerned with student mastery of the annual goals and short-term objectives listed on the Individual Education Plan. At the beginning of the academic year when the Individual Education Plans were written, three to five annual goals were established for each handicapped child. These annual goals were based on the results of a thorough educational diagnosis. At least two of the annual goals for each student dealt with reading and mathematics. Other areas for which annual goals were written varied but included perceptual-motor skills, social adjustment, and/or adaptive physical education.

Five or more short-term objectives were then devised to meet each of the annual goals. Often two children would have the same annual goals such as to gain from 1.0 to a 1.5 in reading during the year. However, the short-term objectives were usually quite different. Based on educational diagnostic tests, the short-term objectives for one child might deal with learning the alphabet and basic sight vocabulary in order to gain the five months. Another child might have short-term objectives dealing with mastering comprehension skills in order to meet the annual goal.

It was projected that all of the students (N>200) would master 80 percent of the annual goals and short-term objectives that had been set for them. The accomplishment of these criteria would be evidenced by the annual review of the individual children's programs and other test data available in the office of the Coordinator of Special Education.

At the beginning of the project year, it was considered important to formulate a consistent procedure¹ to utilize in developing academic goals for individual students.

Using data from the educational diagnosis, a level of

¹The procedure is discussed in chapter five.

academic expectancy was established for each child. Next, a yearly growth rate based on the academic expectancy and the number of years in school was determined. By adding the yearly growth rate to the pretest scores in reading and mathematics, a predicted achievement level was established. The predicted achievement level served as the projected measure of growth for the annual goals. The extent of the discrepancy between the academic expectancy and the actual achievement was determined at the beginning of the year to justify the need for the effort. After the posttest scores were added at the end of the year, the discrepancy between the predicted achievement scores and the actual achievement scores was computed to evaluate the effort. A sample of these data is included in appendices F and G.

In order to evaluate the effectiveness of the Individual Education Plans, ten student folders (N=100) were randomly selected from the records of each of the teachers (N=10). A complete Individual Education Plan including the annual goals, short-term objectives and annual review was included in each folder. Diagnostic test data and psychological evaluation results were also in each child's folder. The records for each child were evaluated separately. Composites of the data were then made. The composite scores are shown on pages 96-112.

An analysis of the materials revealed that 85 percent of the handicapped students mastered 80 percent of the annual goals that had been set for them in reading and mathematics. Including the annual goals for all areas such as perceptual-motor skills, social adjustment, and adaptive physical education, 94 percent mastered 65 percent of the annual goals. One hundred percent of the students mastered more than 50 percent of the annual goals listed on the Individual Education Plans.

The examination of the number of students who mastered 80 percent of the short-term objectives that had been set for them was more difficult. It was necessary to consider each child's short-term objectives separately. A list of the number of objectives that had been written was made. Then the number that was mastered was recorded. From an analysis of the results on this tally, it was determined that the number of students who mastered 80 percent of their short-term goals was seventy-five. Eighty-three percent mastered 65 percent of their short-term objectives while 92 percent mastered more than 50 percent of their short-term objectives.

The appropriateness of the annual goals and short-term objectives was difficult to measure objectively. Some might have been too difficult while others might have

been too easy. The prime measure of the appropriateness of the goals and objectives was the subjective opinion of the team who wrote the annual review. In examining this information on the annual review forms, it was noted that if the child achieved the goals and objectives, the report indicated that the goals and objectives were appropriate. If the child did not master the goals and objectives, the report tended to indicate that the goals and objectives were not appropriate. However, a more objective criterion by which to make this judgment might be needed in the future.

In summarizing the data gathered to evaluate this objective, it was found that a higher percentage of the students mastered the annual goals established for them than mastered the short-term objectives. This might have been due to the fact that more objective data were used to establish the annual goals. Also the annual goals were more general while the short-term objectives had to be quite specific. The appropriateness of the annual goals and short-term objectives might have been another factor that was not taken into account. Although a majority of the students mastered a majority of the annual goals and short-term objectives, objective two was not met as projected. It was only partially successful. Not all of the handicapped students mastered

80 percent of the annual goals and short-term objectives established for them in their Individual Education Plans. As the process of developing individualized programs for handicapped children becomes more established, the Individual Education Plan teams might need additional training in setting and evaluating the goals and objectives.

Objective two was also concerned with student achievement. During the needs assessment, it was determined that the students who had been diagnosed educationally and had had behavioral objectives written for them tended to achieve at a higher level than the students who did not have either. The higher gains were statistically significant at the .05 level of confidence.

Although some of the students had had individualized programs, none of them had individualized programs at the level prescribed by Public Law 94-142. Therefore, if the Individualized Education Plan for handicapped children was as essential as its proponents suggested, students who had partial programs should make more progress than those who had none. For this reason, it was projected that the overall difference in gains in reading and mathematics for the students of the ten teachers would be statistically significant at the .05 level of confidence as a result of

of the Individual Education Plans.

In order to measure this objective, the student test scores from The Wide Range Achievement Test administered on a pretest and posttest basis during the 1976-77 and 1977-78 school years were used. Since the elementary special education teachers were for the most part serving the same children during both academic years, a comparison of total group gains was made.

Reading and mathematics scores of each of the students (N>200) in each of the target teacher's classes were listed. Differences between pretest and posttest scores were computed. Then a mean gain in months of the class in reading and mathematics was obtained. These data were then organized into a composite of the mean gains in reading and mathematics for each class for the 1976-77 and 1977-78 school year. The composite scores in reading and mathematics are illustrated in table 4 and table 5.

A t test was used to analyze the data. It had been projected that student achievement would be higher as a result of having an Individual Education Plan. It was projected that there would be a statistically significant difference at the .05 level of confidence between

TABLE 4
MEAN READING GAINS

Teacher/ area	# of Stud. 76-77	# of Stud. 77-78	Mean Reading Gains 76-77			Mean Reading Gains 77-78			Differ 76-77/ 77-78
			Pretest	Posttest	Mean Gain	Pretest	Posttest	Mean Gain	
1 ^{emr}	24	21	2.20	2.51	+3.1 mo	2.44	2.95	+5.1 mo	+2.0 mo
2 ^{emr}	20	21	1.98	2.44	+4.6 mo	2.40	2.87	+4.7 mo	+ .1 mo
3 ^{ld}	22	23	1.79	2.31	+5.2 mo	2.24	2.74	+5.0 mo	- .2 mo
4 ^{ld}	20	21	1.08	2.01	+9.3 mo	1.89	2.83	+9.4 mo	+ .1 mo
5 ^{ld}	23	24	1.93	2.41	+4.8 mo	2.23	2.75	+5.2 mo	+ .4 mo
6 ^{emr}	19	23	1.88	1.98	+1.0 mo	2.01	2.43	+4.2 mo	+3.2 mo
7 ^{emr}	23	21	1.71	1.80	+ .9 mo	1.95	2.17	+2.2 mo	+1.3 mo
8 ^{emr}	20	24	2.05	2.27	+2.2 mo	2.35	2.75	+4.0 mo	+1.8 mo
9 ^{emr}	22	24	2.16	2.35	+1.9 mo	2.28	2.69	+4.1 mo	+2.2 mo
10 ^{ld}	24	24	1.94	2.24	+3.0 mo	2.37	2.99	+6.2 mo	+3.2 mo

Mean gains based on test results from The Wide Range Achievement Test administered as pretest and posttest during September and May of 1976-77 and 1977-78 school years.

The numerals serve as codes. Numerals 1-5 were teachers who had diagnosis and 6-10 were teachers without diagnosis. EMR = educable mentally retarded LD = learning disabilities

TABLE 5
MEAN MATHEMATICS GAINS

Teacher/ area	# of Stud.	# of Stud.	Mean Mathematics Gains 76-77			Mean Mathematics Gains 77-78			Differ 76-77/ 77-78
			Pretest	Posttest	Mean Gain	Pretest	Posttest	Mean Gain	
¹ emr	24	21	2.22	2.34	+ 1.2 mo	2.46	2.83	+3.7 mo	+2.5 mo
² emr	20	21	1.42	2.50	+10.8 mo	2.36	2.98	+6.2 mo	-4.6 mo
³ ld	22	23	1.28	2.11	+ 8.3 mo	1.77	2.57	+8.0 mo	- .3 mo
⁴ ld	20	21	2.69	3.47	+ 7.8 mo	3.32	3.95	+6.3 mo	-1.5 mo
⁵ ld	23	24	1.56	2.22	+ 6.6 mo	2.31	2.91	+6.0 mo	-1.6 mo
⁶ emr	19	23	1.74	1.98	+ 2.4 mo	1.95	2.38	+4.3 mo	+1.9 mo
⁷ emr	23	21	1.64	1.81	+ 1.7 mo	1.87	2.21	+3.4 mo	+1.7 mo
⁸ emr	20	24	1.74	2.03	+ 2.9 mo	1.92	2.27	+3.5 mo	+ .6 mo
⁹ emr	22	24	2.35	2.67	+ 3.2 mo	2.88	3.49	+6.1 mo	+2.9 mo
¹⁰ ld	24	24	2.25	2.51	+ 2.6 mo	2.87	3.37	+5.0 mo	+2.4 mo

Mean gains based on test results from The Wide Range Achievement Test administered as pretest and posttest during September and May of 1976-77 and 1977-78 school years.

The numerals serve as codes. Numerals 1-5 were teachers who had diagnosis and 6-10 were teachers without diagnosis. EMR = educable mentally retarded LD = learning disabilities

the means for the two years. Although observation showed that there were higher gains made by the students after Individual Education Plans had been written, the differences were not significant at the .05 level of confidence.

The data were then broken down into smaller components for further analysis. An examination was made of the test results of the students who had had complete educational diagnoses and written objectives during both school years. Although these students did not individualized programs as detailed as the Individual Education Plans, they did have individual programs. Using a t test, it was found that there were no appreciable differences in the test scores between the 1976-77 and 1977-78 school years. Therefore, the achievement of students who had had an individualized program did not seem to be enhanced by writing Individual Education Plans.

The data from the students who had not had individual programs before the development of the Individual Education Plan were also analyzed. In this case, there was a statistically significant difference in the means of the students in both reading and mathematics. It was significant at the .05 level of confidence. This would seem to indicate that the achievement of this group of children was improved as a result of the individualized

programs.

Objective two was not met. There was not a statistically significant difference in student achievement as a result of Individual Education Plans for the total group. However, there was a difference for the group of students who had not been taught on an individual basis previously. The data seemed to indicate that handicapped children achieve more when they have individualized programs based on identified educational needs. Whether a formal Individual Education Plan was developed or not, the student's program needed to be tailored to meet his individual needs.

Process objectives

Objective three was designed to make sure that children enrolled in the elementary program for the educable mentally retarded and learning disabled had Individual Education Plans as required by the project and Public Law 94-142. A copy of the individual program consisting of annual goals, short-term objectives, and the annual review for each handicapped child in the system was to be kept on file in the office of the Coordinator of Special Education.² This factor was verified monthly prior to the submission of the attendance report to the Georgia

²Sample copies are appended on pages 87-89.

Department of Education. To document that another copy was on file in the student's school folder, five folders were randomly selected from the files of each of the ten special education teachers working with the project. It was determined that each of the fifty folders examined contained an Individual Education Plan consisting of annual goals, short-term objectives, and an annual review. The criterion of 100 percent for the successful implementation of this objective was reached. The target teachers had written individual education programs for each student in their classes.

The fourth objective was developed to determine the effectiveness of the special education teachers in coordinating the development of Individual Education Plans. In order to evaluate the teachers' concept of Individual Education Plans, informal evaluative instruments were used as pretest and posttest measures at each of the group training sessions. The evaluative instrument used in the first training session was developed by the Georgia Department of Education for use through the Georgia Learning Resources System in training sessions throughout the state.

The informal evaluative instrument was entitled, Special

Education Check-Up: Public Law 94-142.³ It consisted of twenty-four true/false or multiple choice questions. Since the Georgia Department of Education was especially interested in the awareness of Public Law 94-142, many of the questions were more concerned with the multiple aspects of the total concept of Public Law 94-142 than the components specifically related to the project. The instrument was administered to the ten teachers at the beginning of the session and after the first part of the workshop presentation. The mean score of the teachers on the pretest administration was 56 percent. The posttest administration mean score for the ten teachers was 92 percent. This significant increase was quite possibly due to the fact that the teachers had seen the pretest and were looking for the answers in the presentation.

An item analysis of the results of the test was not made since some of the questions were not relevant. However, of the many items on the test, the one most often missed dealt with naming the five components of an Individual Education Plan. All of the teachers could name some of the components, but none of the teachers was able to name all five. Since the tests were scored during the

³A copy is appended on pages 83-85.

coffee break, the results were used in other parts of the training session later in the day.

Another informal evaluative instrument was devised to evaluate the effectiveness of the teachers in the actual development of the written plans. In order to document the teacher's ability to implement the process, an informal rating scale, Individual Education Plan Monitoring Guide, was devised.⁴ It was designed to include the specific steps and procedures required by the law and taught in the training sessions. After the teachers had returned to the schools and had developed the formal Individual Education Plans, the final plans were submitted to the Coordinator of Special Education. Five Individual Education Plans were randomly selected from the folders of each of the ten teachers for analysis. Notes were made on incomplete or inaccurate items. The plans were returned to the teachers for correction. A note was also made in the teachers' files so that the project director could review the information with the teacher during individual conferences.

Since the forms that were distributed to the teachers to use in developing the Individual Education Plans did not

⁴A copy is included on pages 80-81.

have a space designated for anticipated duration of services, this was the most frequently omitted item. Self-help skills were listed on only five of the written plans. Specific reference to related services such as speech, transportation, or adaptive physical education was also a common omission. Only fifteen of the fifty written programs included this information.

After each plan was evaluated and an effectiveness rating score had been given, a composite of the results from all of the plans was made. Table 6 illustrates the overall effectiveness of the special education teachers in writing Individual Education Plans to include the required information. The composite effectiveness rating score of 81 percent was above the projected 80 percent criterion for successful implementation.

The second group training session dealt primarily with the third section of the Individual Education Plan, which was the annual review. The annual review of the written individualized programs for handicapped children was mandated to be completed by a committee. It was designed to insure that the plan for every handicapped child was considered at least annually. The appropriateness of the

TABLE 6

Individual Education Plan Monitoring Guide

Components	Meets (1)	Does Not Meet (0)
1. An IEP is in writing	50	0
2. Written by		
Special education teacher	50	0
Regular class teacher	47	3
Parents/guardian (effort documented)	37	13
Child (when appropriate)*.	N/A	N/A
3. IEP includes		
Present levels of performance	50	0
Academic achievement	50	0
Social adaptation	41	9
Prevocational/vocational skills	43	7
Psychomotor skills	47	3
Self-help skills	5	45
Other **	N/A	N/A
4. Statement of annual goals	50	
5. Statement of short-term objectives	50	0
6. Statement of related services	15	35
7. Show extent of regular class participation	38	12
8. Shows date of initiation of services	46	4
9. Shows anticipated duration of services	0	50
10. Annual review provided for		
Objective criteria for success	45	5
Evaluation procedures	50	0
Dates for evaluation	50	0
11. Did the parents receive a copy	50	0
TOTAL	814	/1000
EFFECTIVENESS RATING	81.40	%

Data pertaining to the number of IEP's that met the established criteria out of the fifty evaluated.

*This item was discounted for evaluation purposes since elementary children are not often considered appropriate IEP team members.

**This item was discounted for evaluation purposes.

placement of the child in special education was considered. Program changes were to be made. Annual goals and short-term objectives for the next school year were to be written at that time so that the child's program of activities was ready for the beginning of the next school year.

An informal evaluative instrument was devised to be administered on a pretest and posttest basis to determine the special education teachers' concept of the annual review.⁵ A pretest score of 67 percent for the ten teachers was obtained. A posttest score of 84 percent was achieved. Apparently after the training sessions, the teachers were more aware of the major concepts of the annual review.

In order to evaluate the effectiveness of the teachers in developing the annual reviews, an informal rating scale was designed.⁶ After the annual reviews had been completed and submitted to the Coordinator of Special Education, five were randomly selected from the folders of each of the ten participating teachers. The fifty annual reviews were analyzed separately. A composite effectiveness rating score of 97 percent was obtained. Table 7 depicts

⁵A copy is appended on pages 91-92,

⁶A copy is appended on page 114,

TABLE 7
Individual Education Plan Monitoring Guide
Annual Review

Components	Meets (1)	Does Not Meet (0)
1. An IEP Annual Review is in writing	50	0
2. Written by		
Special education teacher	50	0
Regular class teacher	50	0
Parent or guardian		
(participated/effort documented)	43	7
Child (when appropriate)*	N/A	N/A
3. Annual review includes appropriate-		
ness of		
Special education placement	50	0
Regular class placement	50	0
Related services	50	0
Program goals	50	0
Short-term objectives	50	0
Special materials	50	0
Teaching strategies	46	4
Evaluation criteria-annual goals	50	0
Evaluation criteria-short-term ob-		
jectives	50	0
4. List of committee members	50	0
5. Signatures of committee members	44	6
6. Agreement or disagreement of		
committee members	44	6
	777	800
TOTAL		
EFFECTIVENESS	97.13%	
RATING		

Data pertaining to the number of IEP Annual Review's that met the established criteria out of the fifty evaluated.

* Since elementary children are not often considered appropriate members of the IEP team, this item was discounted.

a summary of the results.

Using the data gathered from the informal evaluative instruments, it seemed that the teachers who had been trained were able to coordinate the development of Individual Education Plans effectively according to established criteria. The analysis of the informal rating scale scores of the written plans suggested that the teachers had also mastered the skills of coordinating the development of Individual Education Plans according to the stated procedures with more effectiveness than the established 80 percent criterion. The process had apparently been learned.

Objective five dealt with teacher effectiveness. It was projected that the effectiveness of the special education teachers could be measured in part by student achievement. Prior to the initiation of the project, five of the target teachers had been developing individualized programs for their students and five of the teachers had not. However, none of the teachers had developed programs as detailed as the Individual Education Plans. If the Individual Education Plan was as vital as the mandates suggested, it was projected that all of the teachers would be more effective as a result of using

this strategy. It was projected that the overall difference in gains in reading and mathematics for the students would be statistically significant at the .05 level of confidence.

In order to measure this objectives, the same data that were used to evaluate objective two were used to evaluate this objective. Pretest and posttest scores from The Wide Range Achievement Test administered in September and May of the 1976-77 and 1977-78 school years were analyzed. Group means were compared. Table 4 and table 5 illustrate these data.

In an analysis of the total group gains, it was found that the gains were not statistically significant. The gains for the group of students who did not have individualized programs prior to the initiation of Individual Education Plans were statistically significant at the .05 level of confidence in both reading and mathematics. Therefore, the project did seem to make a difference in teacher effectiveness as reflected by student achievement with teachers who were not taking the time to diagnose a child's strength and weaknesses or to write objectives based on the results.

Objective five was only partially met. However, the data

seemed to indicate that the theoretical base for Individual Education Plans was sound, particularly for teachers who must be closely supervised before they will develop individualized programs for their handicapped students.

In order to evaluate the overall project, an Evaluation Process Scale⁷ was utilized. Each step in the procedures developed to carry out the project was listed and rated on a scale of one to five. An 80 percent effectiveness score was set for successful implementation. When the self-rating scale was complete, a score of 97 percent was obtained.

The major problems that occurred dealt with the ability of the project director to establish feasible deadlines and turn-around times. The ability of the project director to anticipate and plan where time was concerned was weak.

Although mandates had been issued to institute Individual Education Plans for handicapped children, it is doubtful that the effort would have been as successful if it had not been for this project. The task that seemed so

⁷A copy is appended on pages 115-118.

immense initially became a matter of everyday procedure by the end of the school year. Teachers had begun to develop individualized programs for handicapped children based on identified needs. Handicapped children had begun to achieve more academically as a result of having individualized programs. Possibly, the proponents of Public Law 94-142 had envisioned just these results.

CHAPTER SEVEN

DISCUSSION

As a result of this project, a management system for the developing, implementing, and monitoring of Individual Education Plans for handicapped children was designed, employed, and evaluated. The results were used to institutionalize the model within the system for all areas of exceptionality during the 1978-79 school year. The program was disseminated to other local educational agencies in the area. New teachers and administrators in the Coffee County School System were trained with the inservice program. Therefore, all new students placed into the Special Education Program in the Coffee County Schools will have had an Individual Education Plan developed by the appropriate personnel prior to the initiation of any services.

A continued effort to improve the quality of the Individual Education Plans will be made. Staff development activities for special education teachers will emphasize establishing adequate goals and objectives based on the identified needs of the individual child. Administrators

will receive training in the supervising and monitoring of the implementation of these programs.

The direct costs of the program were quite minimal. The released time for the teacher training was provided at no extra expense to the system. Consultative services available through the Georgia Learning Resources System and the Georgia Department of Education were provided free of charge. No special facilities were required, and materials were readily available within the system. The Special Education Program had sufficient funds for secretarial assistance to reproduce, distribute and collect the forms. Including the purchase of the media presentation, the individual handbooks for the teachers, and the expense of the reproduction of the materials, the project cost less than three hundred dollars to conduct.

However, there were indirect costs related to the effort. The development and implementation of the project did not make any additional labor demands on the system. It did require a change in the way that teachers spent some of their time since the process of developing Individual Education Plans was quite involved. Although the process apparently required time that was previously used in

instruction, the results seemed to warrant the change. The Coordinator of Special Education had to devote more than five hundred man hours over a fifteen month period to the project.

The most crucial factor in conducting this effort was the allocation of time. The process of evaluating Individual Education Plans to insure that they contained all of the information required by Public Law 94-142 was a cumbersome task. It was often difficult to take the time from a busy administrative day to review written programs for individual children. It was quite easy to allow these materials to accumulate. However, the most demanding factor was to allocate enough time to provide feedback to individual teachers and to monitor the implementation of the individual programs.

Although most of the teachers accepted the fact that an Individual Education Plan was to be written for each handicapped child in their classes, there were a few of the teachers who seemed amazed that someone would inquire as to the progress in implementing the plan. Apparently, there must be a continuous monitoring process to insure that the time spent in developing a written program for each child is not wasted in some obscure file. Training special education personnel to write individual programs

will probably not be sufficient. Although all of the special education teachers in the project had already had training in developing and implementing individualized programs based on identified needs for special education children, 50 percent were not employing the strategy. Therefore, if the process is considered vital to the education of handicapped children, a monitoring component must be utilized.

With the support of the approvals secured prior to the initiation of the project and the role of the project director as Coordinator of Special Education, the implementation and institutionalization of the effort were possible. It would not have been feasible to get the cooperation of the special education teachers and/or the administrators to develop such a complicated process without the support of the local board of education and the system superintendent. Submitting guidelines and/or conducting workshops would not have been the answer. The success of the program depended to a significant degree upon the project director's getting into the field and working with the special education teachers and principals to see that the task was accomplished.

CHAPTER EIGHT

CONCLUSION

Since the problem of establishing and monitoring the development of Individual Education Plans for handicapped children has been faced by every school system across the nation, the response to the model developed in this project was favorable. The program was adopted by three school systems adjacent to Coffee County and was used in these systems during the 1978-79 school year. The process was also institutionalized into each area of exceptionality in the Coffee County School System to insure that all of its exceptional children had been provided with the procedural safeguards guaranteed to them by Public Law 94-142.

As Coordinator of Special Education, the project director was directly responsible for assisting the local educational agency in establishing a system to assure the local board of education that it was in compliance with the mandates of state and federal guidelines. Although this was an assigned task, the method of implementation made

the effort worthy of the time expended. Through a careful needs assessment, it was apparent that many of the handicapped children needed individual programs based on diagnosed individual needs. Therefore, the development and implementation of Individual Education Plans provided a sound strategy.

Fulfilling the state and federal rules and regulations that accompany Public Law 94-142 does not necessarily mean that the education of the exceptional children in the schools of the nation will improve as is the intent of the legislation. Such improvement will require considerable study, planning, training, implementing strategies, evaluating and revising program models, and developing a continuous monitoring process at the local level.

APPENDIX A

INDIVIDUAL EDUCATION PLAN MONITORING GUIDE

INDIVIDUAL EDUCATION PLAN MONITORING GUIDE
COFFEE COUNTY SCHOOLS

TEACHER: _____ SCHOOL: _____

AREA OF DISABILITY: _____ LEVEL: _____

CODE NUMBER OF INDIVIDUAL EDUCATION PLAN BEING EVALUATED: _____

Rate the INDIVIDUAL EDUCATION PLAN on the following points:

COMPONENTS	MEETS (1)	DOES NOT MEET (0)
1. An IEP is in writing	_____	_____
2. Written by		
Special education teacher	_____	_____
Regular class teacher	_____	_____
Parent or guardian (participated or effort documented)	_____	_____
Child (when appropriate)	_____	_____
3. IEP includes		
Present levels of performance	_____	_____
Academic achievement	_____	_____
Social adaptation	_____	_____
Prevocation/vocational skills	_____	_____
Psychomotor skills	_____	_____
Self-help skills	_____	_____
Other	_____	_____
4. Statement of annual goals	_____	_____
5. Statement of short-term objectives	_____	_____
6. Statement of educational services to be provided	_____	_____
7. Shows extent of regular class parti- cipation	_____	_____
8. Shows date of initiation of services	_____	_____
9. Shows anticipated duration of services	_____	_____

INDIVIDUAL EDUCATION PLAN MONITORING GUIDE
COFFEE COUNTY SCHOOLS
PAGE 2

10. Annual review provided for
Objective criteria for success
Evaluation procedures
Dates for evaluation

_____	_____
_____	_____
_____	_____
_____	_____

11. Did the parents receive a copy

_____/24

TOTAL

EFFECTIVENESS
RATING

_____ 8

A P P E N D I X B

SPECIAL EDUCATION CHECK-UP PL 94-142

SPECIAL EDUCATION CHECK-UP
PL 94-142

- | | | |
|--|---|---|
| 1. The local school is responsible for insuring that all handicapped children within its jurisdiction, including those in public or private agencies and institutions, are identified, located, and evaluated. | T | F |
| 2. Every child referred or on a waiting list must be evaluated by September 1, 1978. | T | F |
| 3. After the children are evaluated, the school has until December 1, 1978 to develop the IEP for each child who is determined to need special education. | T | F |
| 4. The school is responsible for checking to see if the hearing aids worn by deaf and hard-of-hearing children are working properly, even if the child is not in a Hearing Impaired or audiological program. | T | F |
| 5. In order to meet the "Multi-Source" requirement for every placement, information from all of the following sources must be considered: aptitude and achievement tests, teacher recommendations, physical condition, social or cultural background, and adaptive behavior. | T | F |
| 6. "First Priority Children" are children who are most severely handicapped within each disability area and who are in an interim placement which is not least restrictive. | T | F |
| 7. "Second Priority Children" are those with milder handicaps who have not yet had an IEP developed. | T | F |
| 8. Free Appropriate Public Education means special education and related services provided at public expense in conformity with an Individualized Education Program. | T | F |
| 9. The school must have an Individualized Education Program in effect for every child who is receiving special education from the school. (Except for crisis intervention placements) | T | F |
| 10. The special education unit in the school must have the IEP completed within 30 days after the child initially begins receiving special education and related services. | T | F |
| 11. The school must hold a meeting once a year on each child to review and, if necessary, revise each child's IEP. | T | F |

12. The date of the initial IEP meeting for a child establishes the "anniversary date" and meetings in following years must occur within a two-week span of the anniversary date. T F
13. The Individualized Education Program should not identify an otherwise appropriate least restrictive placement if the school system does not have the resources to provide the services. T F
14. The notice sent home to parents to inform them of an intended IEP Meeting for their child must contain all but which of the following information: a b
c d
- a. purpose of the meeting
 - b. time and location of the meeting
 - c. who will be in attendance
 - d. anticipated placement of the child
 - e. all of these items must be included in the notice to the parents
15. A meeting to develop an Individualized Education Program for a child may be conducted even if the parents do not attend, if the school makes (and has documented) attempts to convince the parents to attend. T F
16. If the parents do not attend the placement meeting, the child's placement is considered an interim placement until the parents formally concur with the placement. T F
17. The law designates five points that must be included in every child's IEP. Identify the five points.
- 1.)
 - 2.)
 - 3.)
 - 4.)
 - 5.)
18. When a public school places a child in a private school or facility to receive special education services, the private facility thereby assumes legal responsibility for compliance with the law governing the IEP Process. T F

- | | | | |
|-----|--|---|---|
| 19. | Children in all placements (special centers, residential facilities, etc.) must be able to participate in activities such as meals, recess, and other non-academic activities in so far as possible with non-handicapped children. | T | F |
| 20. | Any change in a child's special education program after the initial placement is considered a program alteration and requires parental consent before the revised program can be implemented. | T | F |
| 21. | The school system must have available a continuum of alternative placements to meet the needs of all handicapped children. | T | F |
| 22. | Parents have a right to inspect educational records relating to their child, except (a) information pertaining to psychological testing, and (b) anecdotal records of teachers observations that identify the teacher who reported the information. | T | F |
| 23. | If a parent disagrees with information in a child's record, he/she can request that the information be changed and even petition for a hearing to change the information. | T | F |
| 24. | The school can release personally identifiable information without parental permission only to the family's personal physician and local agencies who can document a formal support relationship with the family (e.g. Department of Social Services). | T | F |

A product of the Georgia Learning Resources System of the Georgia Department of Education, 1977. No corrections were made.

A P P E N D I X C

INDIVIDUAL EDUCATION PLANS

**INDIVIDUALIZED EDUCATION PROGRAM: TOTAL SERVICE PLAN
INDIVIDUAL EDUCATION PLAN**

Anticipated Duration of
Services 1 year

STUDENT'S NAME Lee Evan Armstrong BIRTHDATE 02-20-69
SYSTEM Coffee County Schools SCHOOL Central Elementary School
DATE OF PROGRAM ENTRY 09-01-76 PROGRAM(S) LD
PARENT'S NAME Page W. Armstrong ADDRESS Rt. #3, Douglas PHONE 384-2086

COMMITTEE MEMBERS PRESENT:

<u>W. Tanner</u>	<u>Principal</u>
<u>L. Lewis</u>	<u>LD Teacher</u>
<u>M. Armstrong</u>	<u>Parent</u>
<u>L. Harvey</u>	<u>Regular Teacher</u>
<u>C. Mitchell</u>	<u>OHI Teacher</u>

Annual/Long Term Goals	Person(s) to Provide Service	% of Time	Beginning Date	Review Date	Goals Achieved	
					Yes	No
1. To gain 6 mo in mathematics	LD teacher	1 hour per day	09-15-77	05-31-78	X	
2. To maintain 75% on-task behavior	OHI teacher/physician	Daily medication/monthly observation	09-01-77	05-31-78	X	
3. To maintain average 9 mo gains in reading, science, social studies	Regular class teacher	5 hours per day	09-01-77	05-31-78	X	
4. To gain 6 mo in perceptual motor skills	LD teacher	1/2 hour per day	09-15-77	05-31-78		X

R7

Present Levels of Educational Performance (Strengths & Weaknesses)	Testing Instruments Used				
	Name & Date Pre-test	Score	Name & Date Post-test	Score	Other Non-Academics (specify)
Reading Comprehension	CTBS/5-77	3.2	CTBS/5-78	4.5	Behavioral Observation
Mathematics Skills	CTBS/5-77	1.1	CTBS/5-78	3.0	HELP 8-77 (82% on-task) while on observation
Verbal Communication <u>adequate</u>	teacher observation		teacher observation		5-78 (78% on task)
Written Communication <u>adequate</u>	teacher observation		teacher observation		
Social Development <u>adequate</u>	teacher observation		teacher observation		
Sensory/Motor Development <u>poor</u>	Bender	5.0 yr	Bender	5.3 yr	
Spelling	WRAT/5-77	2.7	WRAT/5-78	3.0	
Other					

97

I have reviewed this report and/or have been informed of its contents. YES X NO

Parent Signature

Page W. Armstrong

Date

9-12-78

Teacher Signature

J. L. Lewis

96

**INDIVIDUAL EDUCATION PROGRAM: SHORT TERM INSTRUCTIONAL OBJECTIVES
INDIVIDUAL EDUCATION PLAN**

STUDENT'S NAME Lee Armstrong AGE 8 SCHOOL Central Elementary TEACHER(S) Lewis-Primary Handi-
cap
PARENT'S NAME Page W. Armstrong PROGRAM Regular, LD, OHI Mitchell - OHI
ADDRESS Rt. #3, Douglas PHONE 384-2086 Harvey - Regular

Instructional Objectives	Behavior	Criteria for Mastery	Materials and/or Resources	Date Started	Evaluation and Date	Criteria Met	
1. To master addition facts	written	90%	Tutorette Systems 80	09-15-77	5-31-78	Yes X	No
2. To master subtraction facts	written	90%	Tutorette Systems 80	09-15-77	5-31-78		X
3. To count to 100 by 1's	oral	100%		09-15-77	5-31-78	X	
4. To write to 100 by 1's	written	100%		09-15-77	5-31-78	X	
5. To count to 100 by 2's	oral/written	100%		09-15-77	5-31-78	X	
6. To take medication	take pill	100% - daily	Medication	09-01-77	5-31-78	X	
7. To complete perceptual-motor activities on 5.6 level (begin at 5.0 years)	motor	six month gain	Frostig	09-15-77	5-31-78		X
8. To name numbers 1-100	oral	90%		09-15-77	5-31-78	X	
9. To read numbers 1-20	oral resp.	90%		09-15-77	5-31-78	X	
10. To stay on task	appropriate-observable responses	75%		09-01-77	5-31-78	X	

I have reviewed this report and/or have been informed of its contents. YES ☒ NO ☐

Parent Signature

Page W. Armstrong

Date 9-12-78

Teacher Signature

J. L. Lewis

INDIVIDUALIZED EDUCATIONAL PROGRAM: ANNUAL REVIEW

Name of Student Lee Armstrong Date of Birth 02-29-69 Age 8 Grade 3 School Central
 Local Education Agency
 Name and Number Coffee County Schools 641 Date of Annual Review 05-27-78

IEP: Total Service Plan and Implementation/Instructional Components	Level of Appropriateness (Check appropriate space)		Recommended Change:
	YES	NO	
Special Education Placement	<u>X</u>	<u> </u>	<u> </u>
Regular Education Placement	<u>X</u>	<u> </u>	<u> </u>
Specific Special Education and/or Related Services	<u>X</u>	<u> </u>	<u>continue monitoring behavior</u>
Program Goal(s)	<u>X</u>	<u> </u>	<u> </u>
Implementation/Instructional Short-term Objective(s)	<u>X</u>	<u> </u>	<u> </u>
Specific Materials and/or Resources	<u>X</u>	<u> </u>	<u> </u>
Specific Teaching Strategies and/or Techniques	<u>X</u>	<u> </u>	<u>use auditory approach</u>
Evaluation Criteria for Completion of Program Goal(s)	<u>X</u>	<u> </u>	<u> </u>
Evaluation Criteria for Completion of Implementation/Instructional Objectives(s)	<u>X</u>	<u> </u>	<u> </u>

99

100

101

CHILD STUDY TEAM MEMBERS PRESENT

Signature
Wendell R. Jones

Position
Principal
LD Teacher
Regular Class Teacher
OHI Teacher
Parent

Agreement of Annual Review
(Check appropriate space)
 YES NO
X
X
X
X
X

APPENDIX D

INDIVIDUAL EDUCATION PLAN TRAINING SESSION

INDIVIDUAL EDUCATION PLAN TRAINING SESSION
ANNUAL REVIEW

Please mark the following items true or false. This information will be used to plan additional sessions and to evaluate other training sessions.

Thank you.

True/
False

Statements

-
-
- | | |
|-------|---|
| _____ | 1. Annual reviews are to be conducted for children who will be in special education for the next school year. |
| _____ | 2. Parents must be at the annual review meeting. |
| _____ | 3. Some of the children should be included in their annual review meetings. |
| _____ | 4. The annual review does not concern the regular class teacher. |
| _____ | 5. The special education teacher decides whether the special education placement is appropriate. |
| _____ | 6. Every team member must concur with the findings of the team. |
| _____ | 7. Current levels of functioning do not need to be considered in the annual review. |
| _____ | 8. New IEP's for the subsequent academic year may be written at the annual review meeting. |
| _____ | 9. The school psychologist should be at every annual review. |
| _____ | 10. The annual review meeting is primarily established to determine the appropriateness of the special education placement. |
| _____ | 11. The annual review team may decide that the child does not need special education services. |
| _____ | 12. The annual review team's report can not be challenged by the parents. |
| _____ | 13. Parent cannot receive a copy of the annual review report. |
| _____ | 14. The annual review is actually an integral part of the IEP. |

INDIVIDUAL EDUCATION PLAN TRAINING SESSION
ANNUAL REVIEW
PAGE 2

- _____ 15. The special education teacher should complete all of the educational evaluations such as specific tests listed as evaluation criteria on the annual goals and short-term objectives prior to the annual review.
- _____ 16. If the annual review team finds that the child did not meet the established goals, it means that the teacher is accountable.
- _____ 17. The annual review report is actually a report on the effectiveness of the child's program.
- _____ 18. Principals cannot serve on the annual review team.
- _____ 19. Parents cannot bring outsiders to the annual review.
- _____ 20. If the parents have a primary language other than English or have a handicap such as being deaf, the school should provide an interpreter.

APPENDIX E

INDIVIDUAL EDUCATION PLAN: TEACHER LOG

INDIVIDUAL EDUCATION PLAN
COFFEE COUNTY SCHOOLS
TEACHER LOG

_____ Individual Conference

_____ Teacher

_____ School Mail/Feedback

_____ Principal

OBSERVER: _____

TRAINEE: _____

DATE: _____

CONTACT NUMBER: _____

Points to Cover: _____

Comments: _____

Follow-Up Conference Scheduled: _____

This is to certify that I have read this evaluation and agree or disagree with the statements contained within.

Signature _____

Date _____

APPENDIX F

STUDENT EVALUATION DATA - READING

STUDENT EVALUATION DATA

Student Code	Chronological Age	Mental Age	Intelligence Quotient	Expectancy	Yearly Growth Rate
1001	10-3	7-4	72	3.16	.8
1002	11-2	7-8	69	3.73	.6
1003	10-8	7-6	70	3.46	.7
1004	12-5	7-5	60	3.96	.6
1005	13-0	7-8	59	4.33	.5
1006	12-4	7-8	62	4.13	.6
1007	10-3	7-4	71	3.16	.6
1008	11-4	6-3	55	2.80	.5
1009	11-5	6-2	54	2.76	.5
1010	12-0	6-9	56	3.40	.5
2011	9-5	6-9	71	2.56	.6
2012	9-6	6-1	64	2.01	.5
2013	13-0	7-11	61	3.87	.5
2014	10-3	6-4	62	2.50	.5
2015	10-9	7-11	74	3.17	.6
2016	11-8	8-2	70	4.20	.7
2017	11-11	7-10	66	3.23	.5
2018	9-7	5-8	59	1.90	.5
2019	10-10	7-4	68	3.10	.6
2020	12-11	7-1	55	3.57	.5
3021	9-7	8-2	85	3.50	.9
3022	8-3	6-8	80	2.10	.7
3023	7-6	6-3	83	1.53	.8
3024	7-2	6-5	89	1.52	.8
3025	8-9	8-1	92	3.16	1.1
3026	10-1	8-7	85	3.96	.8

Continued

READING			
Pretest	Predicted	Posttest	Discrepancy
2.1	2.9	2.9	+ 0 mo
1.1	1.7	1.8	+ 1 mo
2.8	3.5	3.5	+ 0 mo
3.0	3.6	3.6	+ 0 mo
3.4	3.9	3.5	- 4 mo
3.2	3.8	4.0	+ 2 mo
1.2	1.8	2.0	+ 2 mo
1.4	1.9	2.1	+ 2 mo
2.0	2.5	2.6	+ 1 mo
2.2	2.7	2.5	- 2 mo
2.0	2.6	2.6	+ 0 mo
1.8	2.3	2.4	+ 1 mo
3.1	3.6	3.7	+ 1 mo
2.5	3.0	3.1	+ 1 mo
3.6	3.2	3.2	+ 0 mo
3.5	4.2	3.0	-12 mo
2.9	3.4	3.4	+ 0 mo
1.1	1.6	1.7	+ 1 mo
2.3	2.9	3.0	+ 1 mo
2.0	2.5	2.7	+ 2 mo
2.1	3.0	3.1	+ 1 mo
1.9	2.6	2.7	+ 1 mo
1.2	2.0	2.0	+ 0 mo
.8	1.6	1.7	+ 1 mo
2.7	3.8	3.3	- 5 mo
3.0	3.8	3.9	+ 1 mo

Continued

Student Code	Chrono- logical Age	Mental Age	Intelli- gence Quotient	Expec- tancy	Yearly Growth Rate
3027	10-5	9-11	95	4.37	.9
3028	9-4	8-8	93	3.80	.9
3029	7-11	7-1	89	2.16	1.1
3030	10-1	8-11	88	3.57	.7
4031	10-1	8-8	86	4.03	.8
4032	11-3	9-9	87	5.16	.9
4033	12-1	9-8	80	5.36	.8
4034	9-8	9-2	95	4.20	1.1
4035	9-11	8-11	90	3.24	.8
4036	11-4	9-4	83	4.86	.8
4037	12-3	10-11	89	5.64	.8
4038	11-7	10-0	86	5.36	.9
4039	10-9	8-9	81	4.36	.9
4040	10-10	9-5	87	4.50	.9
5041	10-4	9-4	90	4.52	.9
5042	9-3	7-10	85	2.63	.7
5043	8-11	8-1	92	2.90	1.0
5044	9-0	7-6	83	2.86	.7
5045	7-4	6-2	84	1.40	.7
5046	8-5	7-6	89	2.70	.9
5047	7-7	7-1	93	2.10	1.1
5048	7-2	6-2	85	1.33	.7
5049	7-5	6-8	90	1.80	.9
5050	10-4	8-7	83	4.06	.8
6051	9-0	5-11	66	1.20	.3
6052	11-8	6-6	56	3.13	.5
6053	11-0	8-2	74	3.93	.7
6054	9-11	6-1	61	1.90	.5
6055	10-5	7-4	70	3.23	.6
6056	10-3	7-4	71	3.16	.6

Continued

READING			
Pretest	Predicted	Posttest	Discrepancy
2.8	3.3	3.5	+ 2 mo
2.5	3.0	3.1	+ 1 mo
1.4	2.0	2.1	+ 1 mo
2.7	3.3	2.0	-12 mo
1.3	1.8	2.0	+ 2 mo
2.2	2.7	2.9	+ 2 mo
1.4	1.8	1.8	± 0 mo
.9	1.6	1.7	+ 1 mo
1.2	1.7	1.9	+ 2 mo
2.3	2.9	2.1	- 8 mo
1.3	1.8	1.8	± 0 mo
1.2	1.7	1.5	- 2 mo
1.2	1.8	1.9	+ 1 mo
1.2	1.7	1.0	- 7 mo
2.4	2.9	2.9	± 0 mo
2.4	2.9	3.0	+ 1 mo
1.6	2.1	2.1	± 0 mo
1.9	2.4	2.5	+ 1 mo
2.3	2.8	2.9	+ 1 mo
3.3	3.9	2.9	-10 mo
2.8	3.4	3.3	- 1 mo
1.6	2.2	2.3	+ 1 mo
2.2	2.9	2.9	± 0 mo
2.4	3.1	3.2	+ 1 mo
2.0	2.5	2.8	+ 3 mo
1.5	2.0	2.1	+ 1 mo
1.9	2.4	2.5	+ 1 mo
2.1	2.6	2.6	± 0 mo
2.6	3.1	3.2	+ 1 mo
2.4	3.1	3.1	± 0 mo

Continued

Student Code	Chronological Age	Mental Age	Intelligence Quotient	Expectancy	Yearly Growth Rate
6057	12-0	7-5	62	3.80	.5
6058	10-3	6-4	62	2.50	.5
6059	9-4	6-9	72	2.53	.6
6060	12-5	7-5	60	3.96	.6
7061	9-7	5-8	59	1.90	.5
7062	11-5	6-9	68	3.23	.5
7063	9-1	5-6	60	1.56	.4
7064	10-9	7-9	72	3.70	.7
7065	8-8	5-8	65	1.60	.5
7066	13-1	9-0	69	5.16	.6
7067	8-7	5-7	65	1.50	.5
7068	8-9	5-7	64	1.56	.5
7069	10-2	7-2	70	3.00	.6
7070	8-6	5-6	64	1.40	.5
8071	12-9	7-9	61	4.36	.5
8072	13-3	7-7	57	4.36	.5
8073	11-11	6-6	55	2.90	.5
8074	11-1	6-5	58	2.83	.5
8075	12-7	6-9	55	3.63	.5
8076	13-2	7-9	61	4.47	.6
8077	12-5	8-1	65	4.37	.6
8078	11-8	7-8	66	3.93	.6
8079	12-7	8-7	69	4.83	.7
8080	11-7	8-1	70	4.10	.7
9081	12-9	7-3	57	3.96	.5
9082	12-0	6-9	56	3.40	.5
9083	11-4	7-0	62	3.26	.5
9084	10-0	7-0	70	2.80	.5
9085	10-7	6-3	58	2.50	.5
9086	12-2	8-9	72	4.80	.7

Continued

READING			
Pretest	Predicted	Posttest	Discrepancy
2.1	3.0	3.1	+ 1 mo
3.6	4.5	2.0	- 5 mo
1.9	3.0	3.0	± 0 mo
3.0	3.7	3.7	± 0 mo
1.9	2.7	2.9	+ 2 mo
1.2	3.1	3.2	+ 1 mo
1.8	2.6	2.7	+ 1 mo
2.2	3.3	3.3	± 0 mo
2.3	3.1	3.1	± 0 mo
2.1	2.8	2.9	+ 1 mo
2.0	2.8	2.9	+ 1 mo
1.8	2.7	.9	-18 mo
1.7	2.6	2.7	+ 1 mo
4.1	5.0	3.0	-20 mo
3.9	4.8	3.8	-10 mo
2.2	2.9	2.9	± 0 mo
2.4	3.4	3.6	+ 2 mo
1.7	2.4	2.4	± 0 mo
1.8	2.5	2.5	± 0 mo
2.4	3.3	3.4	+ 1 mo
2.2	3.3	3.3	± 0 mo
1.3	2.0	2.1	+ 1 mo
1.5	2.4	2.4	± 0 mo
2.2	3.0	3.2	+ 2 mo
.8	1.1	1.2	+ 1 mo
1.4	1.9	1.9	± 0 mo
2.3	3.0	2.3	- 7 mo
1.5	2.0	2.1	+ 1 mo
2.1	2.7	2.8	+ 1 mo
2.1	2.7	2.7	± 0 mo

Continued

Student Code	Chronological Age	Mental Age	Intelligence Quotient	Expectancy	Yearly Growth Rate
9087	10-5	6-3	60	2.50	.5
9088	13-2	8-9	68	5.20	.7
9089	11-4	7-1	62	3.33	.5
9090	11-9	7-0	60	3.43	.6
10091	8-9	9-7	110	4.23	1.1
10092	10-5	9-0	86	4.30	.8
10093	11-0	8-9	81	4.40	.7
10094	9-2	8-0	88	3.20	.8
10095	9-4	8-3	89	3.46	.8
10096	11-9	9-9	83	5.36	.8
10097	10-7	9-6	90	4.76	.9
10098	8-6	7-2	84	2.46	.8
10099	9-3	8-0	87	3.23	.8
10100	8-5	7-5	88	2.63	.9

The numerals serve as codes for individual teachers' classes and students randomly selected from these classes. Numerals 1-5 were assigned to teachers who had completed educational diagnoses and had written objectives prior to the project. Numerals 6-10 were assigned to teachers who did not have either.

Pretest and posttest scores were based on The Wide Range Achievement Test administered in September of 1977 and May of 1978.

Expectancy formula
$$\frac{2MA + CA}{3} - 5.2 = \text{Expectancy}$$

Predicted Yearly Growth Rate was determined by dividing the expectancy by the number of years in school.

Discrepancy was determined by subtracting the posttest score from the predicted achievement level.

Continued

READING			
Pretest	Predicted	Posttest	Discrepancy
1.9	2.4	2.5	+ 1 mo
2.7	3.4	3.5	+ 1 mo
2.0	2.5	2.5	$\pm$ 0 mo
2.1	2.7	2.7	$\pm$ 0 mo
2.4	3.5	2.9	- 6 mo
2.5	3.3	3.5	+ 2 mo
2.0	2.7	2.8	+ 1 mo
2.6	3.4	2.9	- 5 mo
1.8	2.6	2.6	$\pm$ 0 mo
2.8	3.6	3.8	+ 2 mo
2.9	3.8	3.7	- 1 mo
2.1	2.9	2.0	- 9 mo
1.7	2.5	2.6	+ 1 mo
2.1	3.0	3.0	$\pm$ 0 mo

APPENDIX G

STUDENT EVALUATION DATA - MATHEMATICS

STUDENT EVALUATION DATA

Student Code	Chronological Age	Mental Age	Intelligence Quotient	Expectancy	Yearly Growth Rate
1001	10-3	7-4	72	3.16	.8
1002	11-2	7-8	69	3.73	.6
1003	10-8	7-6	70	3.46	.7
1004	12-5	7-5	60	3.96	.6
1005	13-0	7-8	59	4.33	.5
1006	12-4	7-8	62	4.13	.6
1007	10-3	7-4	71	3.16	.6
1008	11-4	6-3	55	2.80	.5
1009	11-5	6-2	54	2.76	.5
1010	12-0	6-9	56	3.40	.5
2011	9-5	6-9	71	2.56	.6
2012	9-6	6-1	64	2.01	.5
2013	13-0	7-11	61	3.87	.5
2014	10-3	6-4	62	2.50	.5
2015	10-9	7-11	74	3.17	.6
2016	11-8	8-2	70	4.20	.7
2017	11-11	7-10	66	3.23	.5
2018	9-7	5-8	59	1.90	.5
2019	10-10	7-4	68	3.10	.6
2020	12-11	7-1	55	3.57	.5
3021	9-7	8-2	85	3.50	.9
3022	8-3	6-8	80	2.10	.7
3023	7-6	6-3	83	1.53	.8
3024	7-2	6-5	89	1.52	.8
3025	8-9	8-1	92	3.16	1.1
3026	10-1	8-7	85	3.96	.8

Continued

MATHEMATICS			
Pretest	Predicted	Posttest	Discrepancy
2.2	3.0	3.1	+ 1 mo
2.1	2.7	2.9	+ 2 mo
3.0	3.7	3.0	- 7 mo
2.6	3.2	3.4	+ 2 mo
2.1	2.6	2.6	+ 0 mo
3.6	4.2	4.3	+ 1 mo
1.6	2.2	2.3	+ 1 mo
1.5	2.0	2.0	+ 0 mo
2.5	3.0	3.1	+ 1 mo
2.0	2.5	2.7	+ 2 mo
2.8	3.4	3.3	- 1 mo
1.5	2.0	2.2	+ 2 mo
2.5	3.0	3.0	+ 0 mo
3.5	4.0	3.9	- 1 mo
2.1	2.7	2.9	+ 2 mo
2.2	2.9	3.0	+ 1 mo
3.6	4.1	4.2	+ 1 mo
2.0	2.5	2.6	+ 1 mo
1.0	1.6	1.6	+ 0 mo
2.4	2.9	2.9	+ 0 mo
1.6	2.5	2.8	+ 3 mo
1.8	2.5	2.5	+ 0 mo
1.7	2.5	2.7	+ 2 mo
1.4	2.4	2.4	+ 0 mo
2.0	3.1	2.2	- 9 mo
2.2	3.0	3.1	+ 1 mo

Continued

Student Code	Chrono-logical Age	Mental Age	Intelligence Quotient	Expec-tancy	Yearly Growth Rate
3027	10-5	9-11	95	4.37	.9
3028	9-4	8-8	93	3.80	.9
3029	7-11	7-1	89	2.16	1.1
3030	10-1	8-11	88	3.57	.7
4031	10-1	8-8	86	4.03	.8
4032	11-3	9-9	87	5.16	.9
4033	12-1	9-8	80	5.36	.8
4034	9-8	9-2	95	4.20	1.1
4035	9-11	8-11	90	3.24	.8
4036	11-4	9-4	83	4.86	.8
4037	12-3	10-11	89	5.64	.8
4038	11-7	10-0	86	5.36	.9
4039	10-9	8-9	81	4.36	.9
4040	10-10	9-5	87	4.50	.9
5041	10-4	9-4	90	4.52	.9
5042	9-3	7-10	85	2.63	.7
5043	8-11	8-1	92	2.90	1.0
5044	9-0	7-6	83	2.86	.7
5045	7-4	6-2	84	1.40	.7
5046	8-5	7-6	89	2.70	.9
5047	7-7	7-1	93	2.10	1.1
5048	7-2	6-2	85	1.33	.7
5049	7-5	6-8	90	1.80	.9
5050	10-4	8-7	83	4.06	.8
6051	9-0	5-11	66	1.20	.3
6052	11-8	6-6	56	3.13	.5
6053	11-0	8-2	74	3.93	.7
6054	9-11	6-1	61	1.90	.5
6055	10-5	7-4	70	3.23	.6
6056	10-3	7-4	71	3.16	.6

Continued

MATHEMATICS			
Pretest	Predicted	Posttest	Discrepancy
1.3	2.1	2.4	+ 3 mo
2.4	3.3	3.4	+ 1 mo
1.0	2.1	1.5	- 6 mo
2.0	2.7	2.7	± 0 mo
2.5	3.3	3.3	± 0 mo
5.5	6.4	4.6	-18 mo
2.3	3.1	3.2	+ 1 mo
3.9	5.0	3.5	-15 mo
2.9	3.7	3.7	± 0 mo
2.6	3.4	3.4	± 0 mo
4.1	4.9	4.9	± 0 mo
2.6	3.5	3.6	+ 1 mo
3.4	4.3	4.3	± 0 mo
3.9	4.8	4.8	± 0 mo
2.6	3.5	3.6	+ 1 mo
2.5	3.2	3.2	± 0 mo
1.3	2.3	1.5	- 8 mo
2.8	3.5	3.6	+ 1 mo
2.8	3.5	3.5	± 0 mo
2.3	3.2	3.2	± 0 mo
2.9	4.0	3.1	- 9 mo
1.8	2.5	2.5	± 0 mo
2.0	2.9	3.0	+ 1 mo
1.2	2.0	2.0	± 0 mo
1.0	1.3	1.4	+ 1 mo
1.5	2.0	2.0	± 0 mo
2.3	3.0	3.3	+ 3 mo
1.5	2.0	2.0	± 0 mo
1.9	2.5	2.5	± 0 mo
1.7	2.3	2.4	+ 1 mo

Continued

Student Code	Chronological Age	Mental Age	Intelligence Quotient	Expectancy	Yearly Growth Rate
6057	12-0	7-5	62	3.80	.5
6058	10-3	6-4	62	2.50	.5
6059	9-4	6-9	72	2.53	.6
6060	12-5	7-5	60	3.96	.6
7061	9-7	5-8	59	1.90	.5
7062	11-5	6-9	68	3.23	.5
7063	9-1	5-6	60	1.56	.4
7064	10-9	7-9	72	3.70	.7
7065	8-8	5-8	65	1.60	.5
7066	13-1	9-0	69	5.16	.6
7067	8-7	5-7	65	1.50	.5
7068	8-9	5-7	64	1.56	.5
7069	10-2	7-2	70	3.00	.6
7070	8-6	5-6	64	1.40	.5
8071	12-9	7-9	61	4.36	.5
8072	13-3	7-7	57	4.36	.5
8073	11-11	6-6	55	2.90	.5
8074	11-1	6-5	58	2.83	.5
8075	12-7	6-9	55	3.63	.5
8076	13-2	7-9	61	4.47	.6
8077	12-5	8-1	65	4.37	.6
8078	11-8	7-8	66	3.93	.6
8079	12-7	8-7	69	4.83	.7
8080	11-7	8-1	70	4.10	.7
9081	12-9	7-3	57	3.96	.5
9082	12-0	6-9	56	3.40	.5
9083	11-4	7-0	62	3.26	.5
9084	10-0	7-0	70	2.80	.5
9085	10-7	6-3	58	2.50	.5
9086	12-2	8-9	72	4.80	.7

Continued

MATHEMATICS			
Pretest	Predicted	Posttest	Discrepancy
2.7	3.2	3.3	+ 1 mo
3.5	4.0	4.0	+ 0 mo
.8	1.4	1.6	+ 2 mo
1.7	2.3	2.4	+ 1 mo
.9	1.4	1.5	+ 1 mo
3.0	3.5	3.6	+ 1 mo
1.4	1.8	1.8	+ 0 mo
1.5	2.2	2.2	+ 0 mo
1.5	2.0	2.1	+ 1 mo
2.3	2.9	1.4	-15 mo
1.4	1.9	1.9	+ 0 mo
1.3	1.8	1.9	+ 1 mo
2.3	2.9	2.9	+ 0 mo
1.4	1.9	1.9	+ 0 mo
2.7	3.2	2.9	- 3 mo
2.1	2.6	2.4	- 2 mo
.8	1.0	1.2	+ 2 mo
2.2	2.2	2.2	+ 0 mo
1.8	1.8	1.9	+ 1 mo
2.0	2.3	2.4	+ 1 mo
1.3	1.6	1.7	+ 1 mo
2.2	2.2	2.3	+ 1 mo
1.3	1.7	1.9	+ 2 mo
2.0	2.4	2.5	+ 1 mo
2.9	3.4	3.8	+ 4 mo
2.7	3.2	3.5	+ 3 mo
1.9	2.4	2.9	+ 5 mo
.7	1.3	2.3	+10 mo
3.3	3.8	3.9	+ 1 mo
4.8	5.5	5.6	+ 1 mo

Continued

Student Code	Chrono-logical Age	Mental Age	Intelli-gence Quotient	Expec-tancy	Yearly Growth Rate
9087	10-5	6-3	60	2.50	.5
9088	13-2	8-9	68	5.20	.7
9089	11-4	7-1	62	3.33	.5
9090	11-9	7-0	60	3.43	.6
10091	8-9	9-7	110	4.23	1.1
10092	10-5	9-0	86	4.30	.8
10093	11-0	8-9	81	4.40	.7
10094	9-2	8-0	88	3.20	.8
10095	9-4	8-3	89	3.46	.8
10096	11-9	9-9	83	5.36	.8
10097	10-7	9-6	90	4.76	.9
10098	8-6	7-2	84	2.46	.8
10099	9-3	8-0	87	3.23	.8
10100	8-5	7-5	88	2.63	.9

The numerals serve as codes for individual teachers' classes and students randomly selected from these classes. Numerals 1-5 were assigned to teachers who had completed educational diagnoses and had written objectives prior to the project. Numerals 6-10 were assigned to teachers who did not have either.

Pretest and posttest scores were based on The Wide Range Achievement Test administered in September of 1977 and May of 1978.

Expectancy formula

$$\frac{2MA + CA}{3} - 5.2 = \text{Expectancy}$$

Predicted Yearly Growth Rate was determined by dividing the expectancy by the number of years in school.

Discrepancy was determined by subtracting the posttest score from the predicted achievement level.

Continued

MATHEMATICS			
Pretest	Predicted	Posttest	Discrepancy
1.6	2.1	2.4	+ 3 mo
4.6	5.3	5.4	+ 1 mo
2.2	2.7	3.0	+ 3 mo
3.0	3.6	3.7	+ 1 mo
2.6	3.6	3.8	+ 2 mo
2.2	3.0	3.3	+ 3 mo
2.1	2.8	2.8	+ 0 mo
1.5	2.3	2.3	+ 0 mo
2.9	3.7	3.8	+ 1 mo
3.1	3.9	3.6	- 3 mo
4.7	5.6	5.8	+ 2 mo
2.4	3.2	3.4	+ 2 mo
2.5	3.3	3.7	+ 2 mo
2.6	3.5	3.7	+ 2 mo

A P P E N D I X H

INDIVIDUAL EDUCATION PLAN MONITORING GUIDE: ANNUAL REVIEW

INDIVIDUAL EDUCATION PLAN MONITORING GUIDE
ANNUAL REVIEW
COFFEE COUNTY SCHOOLS

TEACHER: _____ SCHOOL: _____

AREA OF DISABILITY: _____ LEVEL: _____

CODE NUMBER OF INDIVIDUAL EDUCATION PLAN BEING EVALUATED: _____

Rate the INDIVIDUAL EDUCATION PLAN: ANNUAL REVIEW on the following points:

COMPONENTS	MEETS (1)	DOES NOT MEET (0)
1. An IEP Annual Review is in writing	_____	_____
2. Written by		
Special education teacher	_____	_____
Regular class teacher	_____	_____
Parent or guardian (participated/effort documented)	_____	_____
Child (when appropriate)	_____	_____
3. Annual review includes appropriateness of		
Special education placement	_____	_____
Regular class placement	_____	_____
Related services	_____	_____
Program goals	_____	_____
Short term objectives	_____	_____
Special materials	_____	_____
Teaching strategies	_____	_____
Evaluation criteria-annual goals	_____	_____
Evaluation criteria-short term objectives	_____	_____
4. List of committee members	_____	_____
5. Signatures of committee members	_____	_____
6. Agreement or disagreement of members	_____	_____
TOTAL	_____/17	_____
EFFECTIVENESS RATING	_____	_____

A P P E N D I X I

EVALUATION PROCESS SCALE

EVALUATION SHEET - Process

PRACTICUMS LABORATORY
Individual Proposal
Mary Lee Armstrong

Procedures	Target Date	Comple- tion	Effectiveness					Comments
			Adequate --	Inadequate				
1. Secure permissions	15-8-77	15-8-77	1	2	3	4	5	
2. Contact consultants			1	2	3	4	5	
Federal	15-8-77	15-8-77	1	2	3	4	5	
State	15-9-77	1-9-77	1	2	3	4	5	
CFSA	15-9-77	30-8-77	1	2	3	4	5	
GLRS	15-8-77	15-8-77	1	2	3	4	5	inservice scheduled
VSC	15-9-77	1-9-77	1	2	3	4	5	materials mailed
GSC	15-9-77	1-9-77	1	2	3	4	5	materials mailed
3. Secure literature searches			1	2	3	4	5	
ERIC	15-10-77	1-9-77	1	2	3	4	5	ordered GSDE
CIIE	15-10-77	1-9-77	1	2	3	4	5	ordered GSDE
4. Evaluate existing media models	15-8-77	15-8-77	1	2	3	4	5	ordered kit
5. Schedule Personnel Training	15-8-77	15-8-77	1	2	3	4	5	
6. Develop Personnel Training Pro	15-9-77	30-8-77	1	2	3	4	5	scheduled for 9-1-77
a. Contact consultants	15-8-77	15-8-77	1	2	3	4	5	
b. Develop sample forms	15-9-77	30-8-77	1	2	3	4	5	
c. Reproduce forms	15-9-77	30-8-77	1	2	3	4	5	
d. Conduct training session	15-9-77	1-9-77	1	2	3	4	5	

EVALUATION SHEET - Process

PRACTICUMS LABORATORY
Individual Proposal
Mary Lee Armstrong

Procedures	Target Date	Completion	Effectiveness					Comments
			Adequate --		Inadequate			
f. Have teachers write drafts	15-9-77	1-9-77	X	2	3	4	5	30 days to complete
g. Outline procedures to complete	15-9-77	1-9-77	X	2	3	4	5	
h. Outline procedures for "new students"	15-9-77	1-9-77	X	2	3	4	5	
i. Establish due date	1-10-77	1-9-77	X	2	3	4	5	due 10-1-77
j. Evaluate training session	15-9-77	1-9-77	1	X	3	4	5	
7. Write memo to principals	20-9-77	6-9-77	X	2	3	4	5	
8. Schedule meeting with staff	20-9-77	6-9-77	X	2	3	4	5	
9. Develop procedures for "new stud."	20-9-77	5-9-77	X	2	3	4	5	
10. Submit procedures	20-9-77	6-9-77	X	2	3	4	5	
11. Review IEP's	15-10-77	30-11-77	1	2	X	4	5	time lag
12. Feedback to teachers	30-10-77	30-11-77	1	X	3	4	5	time lag
13. Establish monthly submission date	15-9-77	1-9-77	X	2	3	4	5	
14. Monitor monthly			1	2	3	4	5	
	27-9-77	27-9-77	X	2	3	4	5	
	28-10-77	27-10-77	X	2	3	4	5	
	28-11-77	28-11-77	X	2	3	4	5	
	5-1-78	4-1-78	X	2	3	4	5	

EVALUATION SHEET - Process

PRACTICUMS LABORATORY
Individual Proposal
Mary Lee Armstrong

Procedures	Target Date	Completion	Effectiveness					Comments
			Adequate --		Inadequate			
	5-2-78	15-2-78	1	2	3	4	5	
	5-3-78	6-3-78	X	2	3	4	5	
	5-4-78	10-4-78	1	2	3	4	5	
	5-5-78	5-5-78	X	2	3	4	5	
	5-6-78	8-6-78	X	2	3	4	5	
16. Develop Session II	15-3-78	15-2-78	X	2	3	4	5	
17. Gather and analyze data	15-7-78	15-7-78	X	2	3	4	5	
18. Modify procedures	15-8-78	1-8-78	X	2	3	4	5	
19. Submit procedures to Board	15-8-78	25-8-78	X	2	3	4	5	
20. Schedule 78-79 training program	15-8-78	1-8-78	1	2	3	4	5	
21. Write report	15-12-78	15-9-78	1	2	3	4	5	
			1	2	3	4	5	
			1	2	3	4	5	
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			1	2	3	4	5	

APPENDIX J

STATISTICAL CALCULATIONS AND COMPUTATIONS

STATISTICAL CALCULATIONS

The statistical calculations that were used in this report were developed in the following manner:

1. The means, variance, and standard deviations were computed with a TI Programmable 57 Texas Instrument Calculator. The reference text was:

Making Tracks into Programming (Dallas: Texas: Texas Instruments Incorporated, 1977), pp. 2-22.

This specific section dealt with the statistical analysis of test scores.

2. The t test was calculated according to the format in the following textbook:

Harold E. Yuker, A Guide to Statistical Calculations (New York: G. P. Putnam's Sons, 1958), pp. 64-67, 85-86.

The following steps were utilized:

- a. Determine the following information for each group

- | | |
|----------------|--------------------|
| 1) N= | Number |
| 2) $\bar{X}$ = | Mean |
| 3) V= | Variance |
| 4) SD= | Standard Deviation |

- b. Calculate the standard error of each mean

$$SE_{\bar{X}} = \frac{SD}{\sqrt{N-1}}$$

$$SE_{\bar{Y}} = \frac{SD}{\sqrt{N-1}}$$

- c. Calculate the standard error of difference between the means

$$SE_{\bar{X} - \bar{Y}} = \sqrt{SE_{\bar{X}}^2 + SE_{\bar{Y}}^2}$$

- d. Subtract the smaller mean from the larger mean to find the difference between them

- e. Divide the difference between the means by the standard error of difference

$$t = \frac{\bar{X} - \bar{Y}}{\sqrt{SE_{\bar{X}}^2 + SE_{\bar{Y}}^2}}$$

- f. Find the df, number of degrees of freedom, for independent samples by

$$df = N_x + N_y - 2$$

- g. Use the Values of t Table to determine the level of significance

COMPUTATIONS

1. Reading gains from the 1976-77 pretest and posttest scores. X is the group with diagnosis and objectives; Y is the group without diagnosis and objectives

X	Y
3.1	1.0
4.6	.9
5.2	2.2
9.3	1.9
4.8	3.0

a. N = 5	N = 5
$\bar{X} = 5.4$	$\bar{Y} = 1.8$
V = 4.308	V = .612
SD = 2.075	SD = .782

$$b. \frac{2.075}{\sqrt{5-1}} = 1.0375 \quad \frac{.782}{\sqrt{5-1}} = .391$$

$$c. \sqrt{1.0375^2 + .391^2} = \sqrt{1.0764 + .1528} = \sqrt{1.2292} = 1.10869$$

$$d. 5.4 - 1.8 = 3.6$$

$$e. t = \frac{3.6}{1.10869} = 3.2470$$

$$f. df = 5 + 5 - 2 = 8$$

$$g. \text{Significance Level} = .05$$

2. Mathematics gains from the 1976-77 pretest and posttest scores. X is the group with diagnosis and objectives; Y is the group without diagnosis and objectives

X	Y
1.2	2.4
10.8	1.7
8.3	2.9
7.8	3.2
6.6	2.6

a. $N = 5$	$N = 5$
$\bar{X} = 6.94$	$\bar{Y} = 2.56$
$V = 10.1104$	$V = .2584$
$SD = 3.1797$	$SD = .5083$

b. $\frac{3.1797}{\sqrt{5-1}} = 1.5898$	$\frac{.5083}{\sqrt{5-1}} = .2541$
---	------------------------------------

c. $\sqrt{1.5898^2 + .2541^2} = \sqrt{2.5275 + .0646} = \sqrt{2.5921} = 1.61$

d. $6.94 - 2.56 = 4.38$

e. $t = \frac{4.38}{1.61} = 2.7205$

f. $df = 5 + 5 - 2 = 8$

g. Significance Level = .05

3. Reading gains from the 1976-77 (X) and 1977-78 (Y) school year for the group with diagnosis and objectives

X	Y
3.1	5.1
4.6	4.7
5.2	5.0
9.3	9.4
4.8	5.2

a.	N = 5	N = 5
	$\bar{X} = 5.4$	$\bar{Y} = 5.89$
	V = 4.308	V = 3.1256
	SD = 2.0756	SD = 1.7680

b. $\frac{2.0756}{\sqrt{5-1}} = 1.0378$ $\frac{1.7680}{\sqrt{5-1}} = .884$

c. $\sqrt{1.0378^2 + .884^2} = \sqrt{1.0770 + .78146} = \sqrt{1.85846} = 1.3633$

d. $5.88 - 5.4 = .48$

e. $t = \frac{.48}{1.3633} = .3521$

f. $df = 5 + 5 - 2 = 8$

g. Significance Level = no significance

4. Reading gains from the 1976-77 (X) and 1977-78 (Y) school year for the group without diagnosis and objectives during the 1976-77 school year

X	Y
1.0	4.2
.9	2.2
2.2	4.0
1.9	4.1
3.0	6.2

- a. $N = 5$ $N = 5$
 $\bar{X} = 1.8$ $\bar{Y} = 4.14$
 $V = .612$ $V = 1.6064$
 $SD = .7823$ $SD = 1.2674$

b. $\frac{.7823}{\sqrt{5 - 1}} = .3912$ $\frac{1.2674}{\sqrt{5 - 1}} = .6337$

c. $\sqrt{.3912^2 + .6337^2} = \sqrt{.1530 + .4016} = \sqrt{.5546} = .7447$

d. $4.14 - 1.8 = 2.34$

e. $t = \frac{2.34}{.7447} = 3.14$

f. $df = 5 + 5 - 2 = 8$

g. Significance Level = .05

5. Reading gains for the total group from the 1976-77 (X) school year and the 1977-78 (Y) school year

X	Y
3.1	5.2
4.6	4.7
5.2	5.0
9.3	9.4
4.8	5.2
1.0	4.2
.9	2.2
2.2	4.0
1.9	4.1
3.0	6.2

- a. $N = 10$ $N = 10$
 $\bar{X} = 6.3$ $\bar{Y} = 5.02$
 $V = 68.07$ $V = 3.1256$
 $SD = 8.2505$ $SD = 1.7680$

b. $\frac{8.2505}{\sqrt{10 - 1}} = 2.7517$ $\frac{1.7680}{\sqrt{10 - 1}} = .5893$

c. $\sqrt{2.7517^2 + .5893^2} = \sqrt{7.5719 + .3473} = \sqrt{7.9192} = 2.8141$

d. $6.3 - 5.02 = 1.28$

e. $t = \frac{1.28}{2.8141} = .4549$

f. $df = 10 + 10 - 2 = 18$

g. Significance Level = no significance

6. Mathematics gains from the 1976-77 (X) and 1977-78 (Y) school year for the group with diagnosis and objectives during the 1976-77 school year

X
1.2
10.8
8.3
7.8
6.6

Y
3.7
6.2
8.0
6.3
6.0

a. $N = 5$

$\bar{X} = 6.94$

$V = 10.1104$

$SD = 3.1797$

$N = 5$

$\bar{Y} = 6.04$

$V = 1.8824$

$SD = 1.3720$

b. $\sqrt{\frac{3.1797^2}{5 - 1}} = 1.5899$

$\sqrt{\frac{1.3720^2}{5 - 1}} = .6860$

c. $\sqrt{1.5899^2 + .6860^2} = \sqrt{2.5278 + .4706} = \sqrt{2.9984} = 1.7316$

d. $6.94 - 6.04 = .9$

e. $t = \frac{.9}{1.7316} = .5198$

f. $df = 5 + 5 - 2 = 8$

g. Significance Level = no significance

7. Mathematics gains from the 1976-77 (X) and 1977-78 (Y) school years for the group without diagnosis and objectives during the 1976-77 school year

X	Y
2.4	4.3
1.7	3.4
2.9	3.5
3.2	6.1
2.6	5.0

a. $N = 5$
 $\bar{X} = 2.56$
 $V = .2584$
 $SD = .5083$

$N = 5$
 $\bar{Y} = 4.46$
 $V = 1.010$
 $SD = 1.0051$

b. $\frac{.5083}{\sqrt{5 - 1}} = .2542$ $\frac{1.0051}{\sqrt{5 - 1}} = .5026$

c. $\sqrt{.2542^2 + .5026^2} = \sqrt{.0065 + .2526} = \sqrt{.2591} = .5090$

d. $4.46 - 2.56 = 1.7$

e. $t = \frac{1.7}{.5090} = 3.3399$

f. $df = 5 + 5 - 2 = 8$

g. Significance Level = .05

8. Mathematics gains for the total group from the 1976-77 (X) and 1977-78 (Y) school years

X	Y
1.2	3.7
10.8	6.2
8.3	8.0
7.8	6.3
6.6	6.0
2.4	4.3
1.7	3.4
2.9	3.5
3.2	6.1
2.6	5.0

a. $N = 10$
 $\bar{X} = 4.75$
 $V = 9.9805$
 $SD = 3.1592$

$N = 10$
 $\bar{Y} = 5.25$
 $V = 2.0705$
 $SD = 1.4389$

b. $\frac{3.1592}{\sqrt{10 - 1}} = 1.0531$ $\frac{1.4389}{\sqrt{10 - 1}} = .4796$

c. $\sqrt{1.0531^2 + .4796^2} = \sqrt{1.1090 + .2300} = \sqrt{1.3390} = 1.1571$

d. $5.25 - 4.75 = .5$

e. $t = \frac{.5}{1.1571} = .4321$

f. $df = 10 + 10 - 2 = 8$

g. Significance Level = no significance

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